Appendix B
(Pages B1-B137)

Revised 3/1/99
Revised 6/1/99 Added levels in Task 1 (JMW)
Revised 9/22/99 Revised listing of primary skills. Task 1: Replaced some sentences in list of stimuli, deleted others. Task 2: Deleted some words from list of stimuli, added a few new words. Task 3: Deleted some words from list of stimuli. Task 4: Replaced all 2 syllable words with new compound words, deleted some 3 & 4 syllable words from list of stimuli. Task 5: Deleted some words from list of stimuli. Will need to consider limiting words to normal stress patterns or using nonsense words....will wait to make decision based on field testing. Changed heading for Task 5. (JMW)

TOKEN =➔ JC

Player: (Current Player)
Game: The Rap-A-Taps Rock On
Primary Skills: Auditory Attention, Discrimination, Short Term Memory, Sequential Memory, Pattern Recognition, Temporal Ordering; Phonological Segmentation and Sequencing; Sight Word Recognition

ACTIVITY 1: Tap out words or syllables. 8/10 correct within round of play.
ACTIVITY 2: Discriminate syllable stress and stress patterns in a same-different discrimination task. 100% correct on 4 same trials and 83% on 6 different trials within round of play.
ACTIVITY 3: Replicate syllable patterns. 3/2 adaptive training.
Programming notes: Allow max of 15 seconds for response but accept correct answer after x seconds (same as we did in Penguin).

STEP 1 (5 tasks; 32 levels of play)
TASK 1: SEGMENTING SENTENCES INTO WORDS (12)
Learning Objective: The student will segment 4-6 word sentences into words. Sentences will consist of one syllable rhyming words, one syllable non-rhyming words, one & two syllable rhyming words or one & two syllable non-rhyming words. Auditory feedback will or will not be provided during response. Printed words will or will not be displayed during response.
Activity Module 1: 8/10 correct within round of play

Task(1) Cuml. Score	Auditory Feedback	Printed Words	# Trials
Segment; 1 syllable, rhyming %	yes	no	
Segment; 1 syllable, rhyming %	yes	yes	
Segment; 1 syllable, rhyming %	no	yes	
Segment; 1 syllable, non-rhyming %	yes	no	

Segment; 1 syllable, non-rhyming	yes		yes
%			
Segment; 1 syllable, non-rhyming	no	yes	
%			
Segment; 1-2 syllable, rhyming	yes		no
%			
Segment; 1-2 syllable, rhyming	yes		yes
%			
Segment; 1-2 syllable, rhyming	no	yes	
%			
Segment; 1-2 syllable, non-rhyming	yes		no
%			
Segment; 1-2 syllable, non-rhyming	yes		yes
%			
Segment; 1-2 syllable, non-rhyming	no	yes	
%			

TASK 2: SEGMENTING WORDS INTO SYLLABLES (3)

Learning Objective: The student will segment 1-4 syllable words into syllables. Auditory feedback will or will not be provided during response. Printed syllables will or will not be displayed during response.

Activity Module 1: 8/10 correct within round of play

Task(2) Score	Auditory Feedback	Printed Syllables	# Trials	Cuml.
Segment words %	yes	no		
Segment words %	yes	yes		
Segment words %	no	yes		

TASK 3: DISCRIMINATING SYLLABLE STRESS: SINGLE SYLLABLES (2)

Learning Objective: The student will discriminate single syllable words as having same or different syllable stress when the words are auditorily presented with an inter-stimulus interval of 1.0 seconds. Visual cues will or will not be displayed to facilitate performance.

Activity Module 2: 100% correct on 4 same trials and 83% on 6 different trials within round of play.

Task (3) Score	# Syllables	Visual Cues	# Trials	Cuml.
Discriminate syllable stress	1	yes		%
Discriminate syllable stress	1	no		%

TASK 4: DISCRIMINATING SYLLABLE STRESS PATTERNS: MULTISYLLABIC WORDS (6)

Learning Objective: The student will identify multi-syllabic words as having same or different syllable stress patterns when the words are auditorily presented with an inter-stimulus interval of 1.0 seconds. Visual cues will or will not be displayed to facilitate performance.
Activity Module 2: 100% correct on 4 same trials and 83% on 6 different trials within round of play.

Task (4) Cuml. Score	# Syllables	Visual Cues	# Trials
Discriminate syllabic stress patterns %	2	yes	
Discriminate syllabic stress patterns %	2	no	
Discriminate syllabic stress patterns %	3	yes	
Discriminate syllabic stress patterns %	3	no	
Discriminate syllabic stress patterns %	4	yes	
Discriminate syllabic stress patterns %	4	no	

TASK 5: IDENTIFYING SYLLABLE STRESS PATTERNS (9)
Learning Objective: The student will replicate syllable stress patterns of multi-syllabic syllable words. Visual cues will or will not be displayed to facilitate performance.
i.   Activity Module 3: 3/2 adaptive training

Task (5) Trials Score	# Syllables	Visual Cues	Auditory Feedback	#
Replicate syllabic stress pattern %	2 syllables	yes	yes	
Replicate syllabic stress pattern %	2 syllables	no	yes	
Replicate syllabic stress pattern %	2 syllables	no	no	
Replicate syllabic stress pattern %	3 syllables	yes	yes	
Replicate syllabic stress pattern %	3 syllables	no	yes	
Replicate syllabic stress pattern %	3 syllables	no	no	
Replicate syllabic stress pattern %	4 syllables	yes	yes	
Replicate syllabic stress pattern %	4 syllables	no	yes	
Replicate syllabic stress pattern %	4 syllables	no	no	

Instruction Script Revised 2-12-99
Revised 4-23-99
        Word Lists Revised 6-2-99

Word list revised 9-20-99.-(JMW)

TOKEN =➔ JC

Task 1

IN1: Rap-A-Tap-Tap, Rap-A-Tap-Tap,

It'll be so cool, it'll be so neat
Tap on the mouse once for every WORD beat.
Revised 4/23/99
IN1: Rap-A-Tap-Tap, Rap-A-Tap-Tap,

It'll be so cool, it'll be so neat
Click once for every WORD to keep the beat

DEMO1A: Let me show you how it's done.
First I listen.....DEMO1B: Then I tap....
DEMO1C: Are you ready? Here we go.....

Task 2:
IN2: Rap-A-Tap-Tap, Rap-A-Tap-Tap,
2. It'll be so cool, it'll be so neat

3. Tap on the mouse once for every SYLLABLE

Revised 4/23/99
IN2: Rap-A-Tap-Tap, Rap-A-Tap-Tap,
It'll be so cool, it'll be so neat
Click once for every SYLLABLE to keep the beat.

DEMO1A: Let me show you how it's done.
First I listen.....DEMO1B: Then I tap....
DEMO1C: Are you ready? Here we go.....

Task 3:
IN3/4: Rap-A-Tap-Tap, Rap-A-Tap-Tap,
You're so cool, you're so neat
Follow my directions....we'll be rockin' to the beat.
DEMO3A: Click on the two green lights when you hear two sounds that are the SAME, like this...
DEMO3B: Click on the green and yellow lights when you hear two DIFFERENT sounds, like this...
DEMO1C: Are you ready? Here we go....
Revised 4/23/99
DEMO3A: Click on the two green lights when you hear two sounds that have the SAME stress, like this...

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DEMO3B: Click on the green and yellow lights when you hear two sounds that have DIFFERENT stress, like this...

Task 4:

IN3/4: Rap-A-Tap-Tap, Rap-A-Tap-Tap,
You're so cool, you're so neat
Follow my directions.... we'll be rockin' to the beat.
DEMO4A: Click on the two green lights when you hear two sound PATTERNS that are the SAME, like this...
DEMO4B: Click on the green and yellow lights when you hear two DIFFERENT sound PATTERNS, like this...
DEMO1C: Are you ready? Here we go....
Revised 4/23/99
DEMO4A: Click on the two green lights when you hear words that sound the SAME, like this...
DEMO4B: Click on the green and yellow lights when you hear two words that sound DIFFERENT, like this...

DEMO4A: Click on the two green lights when you hear two STRESS patterns that are the SAME, like this...
DEMO4B: Click on the green and yellow lights when you hear two DIFFERENT stress patterns, like this...

Task 5:
IN5A: Rap-A-Tap-Tap, Rap-A-Tap-Tap,
You're so cool, you're so neat
Follow my directions.....we'll be rockin' to the beat.
IN5B: Listen to the beats of the of the word I say.
Click on my drum to match what you hear. Click here to play the big, strong notes. Click here to play the little, quiet notes.

DEMO1A: Let me show you how it's done.
First I listen.....DEMO5B: Then I click....
DEMO1C: Are you ready? Here we go.....

a.

b. Stimuli

Revised 2/12/99

TASK 1: Segmenting 4-6 word sentences into words.

21 sentences, 84 words

Record full sentence with normal inflection.

Record each word with non-final inflection (read in reverse order)

Need to record 3 additional sentences in each group (4, 5, 6 words) for total of 30 sentences for more variety.

9/22/99 Sentence revisions shown in bold.

<u>4 words</u>

1R-Kate likes to skate. → **I like to bike.**

1-Jen takes a nap. → **He goes to school.**

2-My room is messy. → **The door is open.**

2-I broke my glasses → **I always drink milk.**

2-My teacher is funny.

2-The pizza is hot. → **It is very hot.**

2-Her sister is silly. → **Her sister is pretty.**

2-Fish swim in water. → **I can carry you.**

2-Matt made five wishes. → **She made five wishes.**

Added 6/2/99

1R-He ate the date.

1R-Matt has a cat.

1R-The nun can run.

1R-Let's make a cake.

1R-Let's get a pet.

1R-Let's try to fly.

1R-Plip, plop, drip, drop. → **OMIT**

1R-The pot got hot.

1R- The mop will drop. → **The ball will fall.**

1-He read the book.

1-My name is Bob. → **I just found it.**

1-It is lunch time. → **OMIT**

1-She has six dolls. → **OMIT**

1-She can play now.

1The doll is new. → **Bring both toys here.**

1-The bike is blue.

1-Show us the duck. → **Don't show us now.**

1-I shall go first.

2R-Candy is so dandy.

2R-The kittens wear mittens.

2R-The poodles eat noodles.

2R-Mable set the table.

2R-Here's money for honey.

2-Sam has many friends.

2-It is warm today.

2-They like candy too.

2-The rabbit is big.

2-We want some pizza.

2-He has two rabbits.

2-The puppy ran away.

2-Look at my sister.

2-The sun is yellow.

2-We played after school.

2-Daddy found the ball.

2-Do your very best.

2-Open only one box.

2-I have seven kittens.

5 words

1R-Mike likes his red bike.

1R-Bill is on the hill. → **OMIT**

1-Ned jumped on his bed. → **OMIT**

2-Wet kisses make me giggle. → **We are going to sleep.**

2-Kevin is washing the dishes. → **I never walk by myself.**

2-Mom is rocking the baby. → **OMIT**

2-He fell off the ladder. → **OMIT**

2-The dragon likes to wiggle.

2R-Cotton candy is so dandy.

2R-Rockets, rockets in my pockets.

2R-The little fellow likes yellow.

Added 6/2/99

1R-Dell fell in the well.

1R-The cat wears a hat. → **The black car went far.**

1R-No, no do not go!

1R-It is fun to run!

1R-He fell on the bell. → **He fell in the well.**

1R-She ran with the pan.

1R-We sleep with the sheep.

1R-They took the red book.

1R-Our house has a mouse.

1-I will work with you.

1-He likes to run fast. →

1-We walked back to school. → **Ask if we may go.**

1-I am eight years old.

1-I will be your friend.

1-The big boy lives here.

1-There goes the school bus. → **We will start school soon.**

1-I did my own work.

2R-The fishes are washing dishes. → **OMIT**

2R-What a funny little bunny.

2R-Hey Mister, she's my sister.

2R-The puppy ate a guppy.

2R-I giggle when you wiggle.

2-The teacher will help you.

2-Look at this little pig.

2-I have a big brother.

2-The big dog ran away.

2-We saw three brown rabbits.

2-Our house is very old.

2-Please come over and play.

2-The men were very kind. → **Let him go before you.**

2-I heard the snowman laugh. → **The snowman made them laugh.**

2-The boys ate the candy.

2-I want to play again.

2-We are going far away.

2-The ride was very long.

2-Thank you for the candy.

2-I can carry both books. → **This is where my teacher lives.**

2-The little pig was cold.

2-Let him hold the baby.

2-The small doll is pretty.

6 words

1R-Take the rake to the lake.

1R-The pig has a red wig.

1R-The new bike is for Mike.

1R- Ned said get off the bed.

1-Here is your ball and mitt. → **OMIT**

1-Sit down when you are done.

1-I can find my way home.

1-He can use my red car.

2R-Not so soon you big baboon.

2-Put the dishes on the table.

2-The button fell off my jacket. → **OMIT**

2-The boys like to eat candy.

2-The monster gave me a pickle.

Added 6/2/99

1R-Stop and see the big tree.

1R- We can keep the black sheep.

1R-We will get a new pet.

1R-Let us know if you go.

1R-I think I'll have a drink.

1R-Ten hens are in the pen.

1R-Be fast and not the last.

1R-The frog jumped on the log. → **The frog sat on the log.**

1R-Look, look I found the book.

1-Yes, we may see the show.

1-This book is for my friend.

1-Come out and play with me.

1-Bring the black pen to me.

1-I have to clean my room.

1-We like to draw and paint.

1-I sleep with the light on.

2R-There's a dragon in my wagon.

2R-Put the cable on the table.

2R-The fiddle goes in the middle.

2R-I feel funny when it's sunny.

2R-We bought honey with the money.

2-We went to see the doctor.

2-The girl jumped into the water.

2-Father went to school with us.

2-We saw fish in the water.

2-This note is from my mother.

2-All the children are in school.

2-The monster has big green feet.

2-I will buy some yellow paint.

2-I could tell you a story.

2-A dragon lives behind my house.

2-We would like some birthday cake.

2-Always look before crossing the street.

2-Tell me a story right now.

2-Come to my house after school.

2-Father came to pick me up.

2-We have many new baby kittens.

2-Frogs like to eat yummy treats.

TASK 2: Segmenting words into syllables

9-20-99 Revised word list includes only those words in bold.

<u>1 syllable words</u>

takes	nap	likes	skate
room	broke	**my**	**hot**
hill	**red**	bike	jumped
bed	Mom	fell	**off**
ball	mitt	**take**	rake
lake	pig	wig	boys	**eat**

New words added to list 6/2/99 (remove duplicates)

he	**ate**	**the**	date	**has**	**a**	cat			
nun	**can**	**run**	**make**	cake	**get**	pet	**try**	**to**	**fly**
drip	drop	pot	**got**	hot	mop	**will**	drop	book	
my	name	**is**	**it**	is	lunch	time			
she	has	**six**	dolls	play	**now**	doll	new		
bike	**blue**	**show**	us	duck	**go**	**first**	fell	**in**	**well**
cat	wears	hat	**no**	**do**	**not**	fun	run		
on	bell	**ran**	**with**	pan	**we**	sleep	with	sheep	
they	took	red	book	**our**	house	mouse			
look	**at**	**this**	**little**	pig	**work**	**you**	**big**	dog	
likes	**fast**	we	walked		back	school			

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am	eight	years	old	be	your	friend	boy	lives	**here**
there	**goes**	bus	**did**	**own**	work				
stop	**and**	**see**	tree	**keep**	**black**	get	new		
let	**us**	**know**	if	**think**	I'll	**have**	a	drink	
ten	hens	**are**	pen	be	fast	not	last		
frog	jumped	log	yes	**may**	**show**				
this	book	**for**	friend	**come**	**out**	**me**	**bring**		
clean	room	**draw**	pain	**light**					

2 syllable words

Record each whole word with normal inflection.

Record each syllable.

9-20-99 Revised word list includes only those words in bold.

ra'-bbit	ja'-cket	bu'-tton	me'-ssy	wi'-ggle
fu'-nny	si'-lly	tea'-cher	wa'-gon	pi'-ckle
dra'-gon	gla'-sses	di'-shes	la'-dder	ta'-ble
zi'-pper	ro'-cking	pi'-zza	a'-pple	can'-dy
ro'-bot	si'-ster	mon'-ster	ba'-by	wa'-shing

4. New words added 6/2/99

dan'-dy. ki'-ttens mi'-ttens

poo'-dles   noo'-dles   ta'-ble   mo'-ney

ho'-ney   to-day'   pu'-ppy   **a-way'**   ye'-llow

af'-ter   **o'-pen** on'-ly   se'-ven   ki'-sses   gi'-ggle

li'-ttle   fu'-nny   bu'-nny   gu'-ppy   wi'-ggle   tea'-cher
bro'-ther

a'-way   **o'-ver**   ba'-by   **a-gain'**   dra'-gon   wa'-gon
ca'-ble

fi'-ddle   mi'-ddle   fi'-shes   fu'-nny   su'-nny

ho'-ney   **doc'-tor**   wa'-ter   fa'-ther

mo'-ther   mon'-ster   be'-hind   cross'-ing   yu'-mmy

9-20-99 New words added in bold
my-self '   un'-der
to-day'mu'-sic
be-cause'   win'-ter
be-fore'   thun'-der
al'-ways   pa'-per
a-bout'nap'-kin
num'-ber   par'-ty
pic'-nic

<u>3 syllable words</u>
Record each whole word with normal inflection.
Record each syllable to match.
9-20-99 Revised word list includes only those words in bold.
ske'-le-ton
pre'-si-dent
prin'-ci-pal
e-le'-ven
cro'-co-dile
cu'-cum-ber
e'-le-phant
te'-le-phone
am'-bu-lance
ham'-bur-ger
grass'-ho-pper
di'-no-saur
lo'-lli-pop
bu'-tter-fly
al'-pha-bet
pop'-si-cle
cho'-co-late
a'-ni-mal
por'-cu-pine

dis-co'-ver
tor-na'-do
pa-ja'-mas
to-ma'-to
ba-na'-na
com-pu'-ter
po-lice'-man
go-ri'-lla
um-bre'-lla

le-mo-nade'
kan-ga-roo'
ma-ga-zine'

4 syllable words (15 words)
Record each whole word with normal inflection.
Record each syllable to match.
9-20-99 Revised word list includes only those words in bold.
wa'-ter-me-lon
a'-lli-ga-tor
he'-li-cop-ter
ca'-ter-pi-llar
ro'-ller-coa-ster

cal'-cu-la-tor
e'-le-va-tor
ve'-ge-ta-bles

bi-no'-cu-lars
rhi-no'-cer-os
har-mo'-ni-ca
         ther-mo'-me-ter

ba-ller-i'-na
ma-ca-ro'-ni
a-vo-ca'-do

9-20-99 New words added in bold
kin'-der-gar-ten
su'-per-mar-ket

TASK 3

Discriminating syllable stress of single syllable words

9-20-99 Revised word list includes only those words in bold.

fat, cat, nap, **big, hot**, bed, mop, hill, zip, pen, mitt, fun, pen, cave, fell, bell, wig, pig, bike, **take, like**, skate, kite, lake, rake

New words added 6/2/99:

he, ate, the, date, has, nun, **can, run, make, cake,** get, pet, **try, to, fly,** drip, drop, pot, got, hot, mop, **will, book** my, **name, is, it, lunch, time, she, has,** six, dolls, play, **now,** doll, **new,** bike, **blue,** show, **us,** duck, **go, first,** fell in, **well,** hat, **no, do, not,** fun, run, on, bell, **ran, with, pan, we,** sleep, **with,** sheep, **they, took, red,** book, **our,** house, mouse, **look, at, this, little,** pig, work, you, big, dog, fast, we, back, school, **am, eight,** years, **old, be, your,** bus, **did, own, work,** stop, and, see, tree, keep black, **get, new, let, us, know, if, think, have,** drink, **ten, are,** pen, fast, **not,** frog, log, **yes, may, show,** this, book, for, friend, **come, out, me, bring , clean,** room, **draw,** pain, **light**

TASK 4: Discriminating 2,3,4 syllable words with varying stress

<u>2 syllable words (25 words, included above)</u>

Record each whole word with normal inflection and with contrastive syllable stress.

Record each syllable to match.

9-20-99 Added 2 syllable compound words.

some'-thing

door'-bell

pop'-corn

my-self'

to-day'

with-out'

tooth'-brush

gum-'-ball
hot'-dog
birth'-day
snow'-man
mail'-bag
sail'-boat

fire'-man
school'-book
rain'-coat
skate'-board
shoe'-lace
tea'-pot
sun'-shine
boy'-friend
home'-work

3 syllable words
Record each whole word with normal inflection.
Record each syllable to match.
9-20-99 Revised word list includes only those words in bold.

ske'-le-ton
pre'-si-dent
prin'-ci-pal
e-le'-ven
cro'-co-dile
cu'-cum-ber
e'-le-phant
te'-le-phone
am'-bu-lance
ham'-bur-ger
grass'-ho-pper
di'-no-saur
lo'-lli-pop
bu'-tter-fly
al'-pha-bet
pop'-si-cle
cho'-co-late
a'-ni-mal
por'-cu-pine

dis-co'-ver
tor-na'-do
pa-ja'-mas
to-ma'-to
ba-na'-na
com-pu'-ter
po-lice'-man
go-ri'-lla
um-bre'-lla

le-mo-nade'
kan-ga-roo'
ma-ga-zine'

4 syllable words (15 words)
Record each whole word with normal inflection.
Record each syllable to match.

9-20-99 Revised word list includes only those words in bold.
wa'-ter-me-lon
a'-lli-ga-tor
he'-li-cop-ter
ca'-ter-pi-llar
ro'-ller-coa-ster

cal'-cu-la-tor
e'-le-va-tor
ve'-ge-ta-bles

bi-no'-cu-lars
rhi-no'-cer-os
har-mo'-ni-ca
     ther-mo'-me-ter

ba-ller-i'-na
ma-ca-ro'-ni
a-vo-ca'-do

9-20-99 New words added in bold
kin'-der-gar-ten
su'-per-mar-ket

TASK 5: Matching stress pattern of 2, 3, 4 syllable words
     (Recorded above in Task 2)

9-20-99 Revised word list includes only those words in bold.

ra'-bbit	ja'-cket	bu'-tton	me'-ssy	wi'-ggle
fu'-nny	si'-lly	tea'-cher	wa'-gon	pi'-ckle
dra'-gon	gla'-sses	di'-shes	la'-dder	ta'-ble
zi'-pper	ro'-cking	pi'-zza	a'-pple	can'-dy
ro'-bot si'-ster	mon'-ster	ba'-by	wa'-shing	

5. New words added 6/2/99

dan'-dy.   ki'-ttens   mi'-ttens
    poo'-dles   noo'-dles   ta'-ble   mo'-ney

    ho'-ney   to-day'   pu'-ppy   **a-way'**   ye'-llow

    af'-ter   **o'-pen** on'-ly   se'-ven   ki'-sses   gi'-ggle

    li'-ttle   fu'-nny   bu'-nny   gu'-ppy   wi'-ggle   tea'-cher
    bro'-ther

    a'-way   **o'-ver**   ba'-by   **a-gain'**   dra'-gon   wa'-gon
    ca'-ble

fi'-ddle	mi'-ddle	fi'-shes	fu'-nny	su'-nny
ho'-ney	**doc'-tor**	wa'-ter	fa'-ther	
mo'-ther	mon'-ster	be'-hind	cross'-ing	yu'-mmy

9-20-99 New words added in bold

my-self '	un'-der
to-day'	mu'-sic
be-cause'	win'-ter
be-fore'	thun'-der
al'-ways	pa'-per
a-bout'	nap'-kin
num'-ber	par'-ty
pic'-nic	

For JMW use only - 2 syllable word count:
stress on 1st syllable = 19
stress on 2nd syllable = 7

<u>3 syllable words (30 words)</u>
Record each whole word with normal inflection.
Record each syllable to match.
9-20-99 Revised word list includes only those words in bold.

ske'-le-ton
pre'-si-dent
prin'-ci-pal
e-le'-ven
cro'-co-dile
cu'-cum-ber
e'-le-phant
te'-le-phone
am'-bu-lance
ham'-bur-ger
grass'-ho-pper
di'-no-saur
lo'-lli-pop
bu'-tter-fly
al'-pha-bet
pop'-si-cle
cho'-co-late
a'-ni-mal
por'-cu-pine

dis-co'-ver
tor-na'-do
pa-ja'-mas

to-ma'-to
ba-na'-na
com-pu'-ter
po-lice'-man
go-ri'-lla

For JMW use only - 3 syllable word count:
stress on 1st syllable = 8
stress on 2nd syllable = 6

4 syllable words (15 words)
Record each whole word with normal inflection.
Record each syllable to match.
9-20-99 Revised word list includes only those words in bold.
wa'-ter-me-lon
a'-lli-ga-tor
he'-li-cop-ter
ca'-ter-pi-llar
ro'-ller-coa-ster

cal'-cu-la-tor
e'-le-va-tor
ve'-ge-ta-bles

bi-no'-cu-lars
rhi-no'-cer-os
har-mo'-ni-ca
        ther-mo'-me-ter

ba-ller-i'-na
ma-ca-ro'-ni
a-vo-ca'-do

9-20-99 New words added in bold (RECORD WITH CONSTRASTIVE STRESS ON EACH SYLLABLE)
kin'-der-gar-ten
su'-per-mar-ket

For JMW use only - 4 syllable word count:
stress on 1st syllable = 6
stress on 2nd syllable = 2
stress on 2nd syllable = 1

Revised 6/2/99: Separated out real & nonsense words
Revised 9/25/99: Remove all words ending in 'ck' and 'll' from all Tasks;
Removed Tasks 4, 5, 6; Renumbered Tasks 7 & 8 to now be Tasks 4 & 5; Remove
Tasks 9 & 10; Renumbered Tasks 11 & 12 to now be Tasks 6 & 7; Revised header
and learning objective text for new Task 6; Revised header and learning
objective text for new Task 7; remove VCe and CVCe words from new Tasks 6 & 7;
Remove VCe and CVCe levels from new Task 7; JMW needs to review all word lists,
please provide this data; Added 4 additional tasks, new Tasks 8 and 9 use
Activity Module 1, new Task 10 uses Activity Module 3 and new Task 11 uses
Activity Module 4; word lists added for new Tasks 8, 9, 10 & 11.
Revised 10/11/99: Revised task numbers to correspond to re-design and re-
numbering of tasks in design specs on 9/25/99. Removed words from word lists
(all words ending in "ck", "ll" and all CVCe words); added 5 new words in task
6.

TOKEN (JC

Slurp & Burp
Player: (Current Player)
Game: Slurp & Burp
Primary Skills: Blending onset-rime; Recognizing word endings; Segmenting
phonemes; Deleting phonemes; Word identification, Decoding and Spelling.

ACTIVITY MODULE 1: Present sound units, separated by interval. Student makes
response by selecting one of three pictures.
ACTIVITY MODULE 2: Present word. Instruct student to identify word ending by
selecting from one of three choices.
ACTIVITY MODULE 3: Click to segment word into phonemes
ACTIVITY MODULE 4: Student spells word with keyboard input.

STEP 1 (12 tasks; 134 levels of play)
TASK 1: BLENDING ONSETS & RIMES AND DECODING: CVC WORDS (13)
Learning Objectives: The student will blend onset-rime units presented at x
second intervals with or without corresponding graphemes into a word and will
make a response by selecting from a set of three phonetically-dissimilar or
phonetically-similar words. The student will identify CVC words presented with
no auditory cues and will make a response by selecting from a set of three
phonetically-dissimilar or phonetically-similar words.
Phonetically dissimilar = different initial consonant and medial vowel.
Phonetically similar = same rime or onset.
"Hello. Bog Frogg here." "Let me show you how to play."
A: "s-un says sun"
A: "Now it's your turn. What word do you hear?"
A&G: "s-un says sun"
A&G: "Now it's your turn. What word do you hear and see?"
G: "This word is sun"
G: "Now it's your turn. What word do you see?"
No lily-pad rollovers.

Activity Module 1

Task(1)	Presentation	Interval	Choices	# Trials
Cuml. Score				
1-Blend onset-rimes	auditory	.25 sec		dissimilar
%				

2-Blend onset-rimes	auditory	1 sec	dissimilar
3-Blend onset-rimes	auditory	2 sec	dissimilar
4-Blend onset-rimes	auditory	2 sec	same rime
5-Blend onset-rimes	auditory	2 sec	same onset
6-Blend onset-rimes	auditory & visual	.25 sec	dissimilar
7-Blend onset-rimes	auditory & visual	1 sec	dissimilar
8-Blend onset-rimes	auditory & visual	2 sec	dissimilar
9-Blend onset-rimes	auditory & visual	2 sec	same rime
10-Blend onset-rimes	auditory & visual	2 sec	same onset
11-Decode CVC words	visual	n/a	dissimilar
12-Decode CVC words	visual	n/a	same rime
13- Decode CVC words	visual	n/a	same onset

TASK 2: BLENDING ONSETS & RIMES AND DECODING: CVC NONSENSE WORDS (13)
Learning Objectives: The student will blend onset-rime units presented at x
second intervals with or without corresponding graphemes into a word and will
make a response by selecting from a set of three phonetically-dissimilar or
phonetically-similar nonsense words. The student will decode CVC nonsense words
presented with no auditory cues and will make a response by selecting from a set
of three phonetically-dissimilar or phonetically-similar nonsense words.
Phonetically dissimilar = different initial consonant and medial vowel.
Phonetically similar = same rime or onset.

"Hello. Bog Frogg here." "Let me show you how to play."
A: "s-un says sun"
A: "Now it's your turn. What word do you hear?"
A&G: "s-un says sun"
A&G: "Now it's your turn. What word do you hear and see?"
G: "This word is sun"
G: "Now it's your turn. What word do you see?"
No lily-pad rollovers.

Activity Module 1

Task(2)	Presentation	Interval	Choices	# Trials
Cuml. Score				
1-Blend onset-rimes	auditory	.25 sec	dissimilar	
2-Blend onset-rimes	auditory	1 sec	dissimilar	
3-Blend onset-rimes	auditory	2 sec	dissimilar	
4-Blend onset-rimes	auditory	2 sec	same rime	

5-Blend onset-rimes	auditory	2 sec	same onset
%			
6-Blend onset-rimes	auditory & visual	.25 sec	dissimilar
%			
7-Blend onset-rimes	auditory & visual	1 sec	dissimilar
%			
8-Blend onset-rimes	auditory & visual	2 sec	dissimilar
%			
9-Blend onset-rimes	auditory & visual	2 sec	same rime
%			
10-Blend onset-rimes	auditory & visual	2 sec	same onset
%			
11-Decode CVC words visual		n/a	dissimilar
%			
12-Decode CVC words visual		n/a	same rime
%			
13-Decode CVC words visual		n/a	same onset
%			

TASK 3: SEGMENTING & ELISION OF INITIAL CONSONANT: CVC WORDS & NONSENSE WORDS (12)
Learning Objective: When presented with a one-syllable CVC word or nonsense word, the student will identify the rime unit by selecting from one of three phonetically-dissimilar or phonetically-similar rimes.
Phonetically dissimilar = different vowel.
Phonetically similar = same vowel.

"Hello. Bog Frogg here."
A: "Listen to the frog say sun without the s.....un (animate)"
A: "Now it's your turn. Which frog says --- without the ---?"
A&G: "Listen to the frog say sun without the s.....un (animate)"
A&G: "Now it's your turn. Which frog says --- without the ---?"
G: "Watch the frog spell the end of sun (animate)"
G: "Now it's your turn. Which letters spell ___ without the ___ ?"

User rolls-over lily-pad to hear (at auditory levels) and select response choices.

Activity Module 2

Task(3)	Presentation	Choices	# Trials
Cuml. Score			
1-ID rime in CVC word	auditory	dissimilar	
2-ID rime in CVC word	auditory	similar	
3-ID rime in CVC word	auditory & visual	dissimilar	
4-ID rime in CVC word	auditory & visual	similar	
5-ID rime in CVC word	visual	dissimilar	
6-ID rime in CVC word	visual	similar	
7-ID rime in CVC nonsense word	auditory	dissimilar	
8-ID rime in CVC nonsense word	auditory	similar	

9-ID rime in CVC nonsense word	auditory & visual	dissimilar
10-ID rime in CVC nonsense word	auditory & visual	similar
11-ID rime in CVC nonsense word	visual	dissimilar
12-ID rime in CVC nonsense word	visual	similar

(Former Task 7)
TASK 4: BLENDING PHONEMES AND DECODING: CVC WORDS (10)
Learning Objectives: The student will blend three phonemes presented at x second intervals with or without corresponding graphemes into a word and will make a response by selecting from a set of three phonetically-dissimilar or phonetically-similar words. The student will identify CVC words presented with no auditory cues and will make a response by selecting from a set of three phonetically-dissimilar or phonetically-similar words.
Phonetically dissimilar = (different initial and final consonants and medial vowel).
Phonetically similar = (same medial vowel and initial or final consonant).

"Hello. Bog Frogg here." "Let me show you how to play"
A: "s-u-n says sun"
A: "Now it's your turn. What word do you hear?"
A&G: "s-u-n says sun"
A&G: "Now it's your turn. What word do you hear and see?"
G: "This word is sun"
G: "Now it's your turn. What word do you see?"
No roll-overs on lilypads.

Activity Module 1

Task(4)	Presentation	Interval	Choices	# Trials Cuml. Score
1-Blend phonemes	auditory	.25 sec	dissimilar	%
2-Blend phonemes	auditory	1 sec	dissimilar	%
3-Blend phonemes	auditory	2 sec	dissimilar	%
4-Blend phonemes	auditory	2 sec	similar	%
5-Blend phonemes	auditory & visual	.25 sec	dissimilar	%
6-Blend phonemes	auditory & visual	1 sec	dissimilar	%
7-Blend phonemes	auditory & visual	2 sec	dissimilar	%
8-Blend phonemes	auditory & visual	2 sec	similar	%
9-Decode CVC words	visual	n/a	dissimilar	%
10-Decode CVC words	visual	n/a	similar	%

(Former Task 8)
TASK 5: BLENDING PHONEMES AND DECODING: CVC NONSENSE WORDS (10)

Learning Objectives: The student will blend three phonemes presented at x second intervals with or without corresponding graphemes into a nonsense word and will make a response by selecting from a set of three phonetically-dissimilar or phonetically-similar nonsense words. The student will decode CVC words presented with no auditory cues and will make a response by selecting from a set of three phonetically-dissimilar or phonetically-similar nonsense words.
Phonetically dissimilar = (different initial and final consonants and medial vowel).
Phonetically similar = (same medial vowel and initial or final consonant).

"Hello. Bog Frogg here." "Let me show you how to play"
A: "s-u-n says sun"
A: "Now it's your turn. What word do you hear?"
A&G: "s-u-n says sun"
A&G: "Now it's your turn. What word do you hear and see?"
G: "This word is sun"
G: "Now it's your turn. What word do you see?"
No roll-overs on lilypads.

Activity Module 1

Task(5) Cuml. Score	Presentation	Interval	Choices	# Trials
1-Blend phonemes %	auditory	.25 sec	dissimilar	
2-Blend phonemes %	auditory	1 sec	dissimilar	
3-Blend phonemes %	auditory	2 sec	dissimilar	
4-Blend phonemes %	auditory	2 sec	similar	
5-Blend phonemes %	auditory & visual	.25 sec	dissimilar ·	
6-Blend phonemes %	auditory & visual	1 sec	dissimilar	
7-Blend phonemes %	auditory & visual	2 sec	dissimilar	
8-Blend phonemes %	auditory & visual	2 sec	similar	
9-Decode CVC words %	visual	n/a	dissimilar	
10-Decode CVC words %	visual	n/a	similar	

(Former Task 11)
TASK 6: SEGMENTING VC & CVC WORDS INTO PHONEMES (6)
Learning Objective: The student will segment VC and CVC real words and nonsense words into phonemes. Auditory feedback will or will not be provided during response. Graphemes will or will not be displayed during response. (programming note: 80% criterion here)
"Hello. Bog Frogg here. Click on the mouse once for each sound you hear. Let me show you how this is done."
A: "First, listen to the word..... sun. Then, click on the mouse once for each sound in the word, like this...s-u-n "
A: "Now it's your turn."
A&G: "First, listen to the word..... sun. Then, click on the mouse once for each sound in the word, like this...s-u-n"

A&G: "Now it's your turn."
G: "First, Listen to the word..... sun. Then, click on the mouse once for each sound in the word, like this...s-u-n "
G: "Now it's your turn."

Activity Module 3

Task(6) Cuml. Score	Auditory Feedback	Display Graphemes	# Trials
1-Segment real word into phonemes %	yes	no	
2-Segment real word into phonemes %	yes	yes	
3-Segment real word into phonemes %	no	yes	
4-Segment nonsense word into phonemes %	yes	no	
5-Segment nonsense word into phonemes %	yes	yes	
6-Segment nonsense word into phonemes %	no	yes	

(Former Task 12)
TASK 7: SPELLING VC & CVC WORDS (12)
Learning Objective: The student will spell VC and CVC real and nonsense words by typing letters on the keyboard. Auditory cues and feedback will or will not be available during the encoding response.
"Hello. Bog Frogg here. Let me show you how to play.
A: "First, listen to the word..... sun. Then, use the keyboard to spell the word.
A: "Now it's your turn."
No A: "First, listen to the word..... sun. Then, use the keyboard to spell the word.
No A: "Now it's your turn."
Auditory cues = roll-overs
Auditory Feedback = play sound when typed in by user.

Activity Module 4

Task(7) Cuml. Score	Auditory Cues	Auditory Feedback	# Trials
1-Spell VC, CVC real word %	yes	yes	
2-Spell VC, CVC real word %	no	yes	
3-Spell VC, CVC real word %	no	no	
4-Spell VC, CVC nonsense word	yes	yes	%
5-Spell VC, CVC nonsense word	no	yes	%
6-Spell VC, CVC nonsense word	no	no	%

WORD LISTS
Task 1
Blend onset-rimes: REAL WORDS
Revised 10/11/99: removed all words ending in "ck" and "ll"

Dissimilar: select foils from different vowel family, exclude those with same onset

```
k:cap,m:map,ll:lap,aep
b:back,s:sack,dz:jack,aek
d:dad,s:sad,m:mad,aed
m:mat,h:hat,k:cat,aet
k:can,f:fan,p:pan,aen
h:ham,dz:jam,j:yam,aem
b:bag,rl:rag,t:tag,aeg

sh:shell,b:bell,w:well,cap(e)l
p:pen,t:ten,m:men,cap(e)n
rl:red,b:bed,sh:shed,cap(e)d
w:wet,n:net,dz:jet,cap(e)t

k:kick,ll:lick,s:sick,cap(i)k
ch:chin,p:pin,f:fin,cap(i)n
w:wig,p:pig,d:dig,cap(i)g
ll:lip,sh:ship,z:zip,cap(i)p

p:pot,k:cot,h:hot,at
m:mop,t:top,k:cop,ap
s:sock,rl:rock,ll:lock,ak

n:nut,h:hut,k:cut,^t
s:sun,g:gun,b:bun,^n
k:cub,t:tub,s:sub,^b
b:bug,rl:rug,h:hug,^g
```

Same rime: select foils from same line
```
k:cap,m:map,ll:lap,aep
b:back,s:sack,dz:jack,aek
d:dad,s:sad,m:mad,aed
m:mat,h:hat,k:cat,aet
k:can,f:fan,p:pan,aen
h:ham,dz:jam,j:yam,aem
b:bag,rl:rag,t:tag,aeg

sh:shell,b:bell,w:well,cap(e)l
p:pen,t:ten,m:men,cap(e)n
rl:red,b:bed,sh:shed,cap(e)d
w:wet,n:net,dz:jet,cap(e)t

k:kick,ll:lick,s:sick,cap(i)k
ch:chin,p:pin,f:fin,cap(i)n
w:wig,p:pig,d:dig,cap(i)g
ll:lip,sh:ship,z:zip,cap(i)p

p:pot,k:cot,h:hot,at
m:mop,t:top,k:cop,ap
s:sock,rl:rock,ll:lock,ak

n:nut,h:hut,k:cut,^t
s:sun,g:gun,b:bun,^n
k:cub,t:tub,s:sub,^b
b:bug,rl:rug,h:hug,^g
```

Same onset: select foils with same onset, same vowel family (whenever possible,
otherwise o.k. to select from different vowel family)
k:cap,m:map,ll:lap,aep
b:back,s:sack,dz:jack,aek
s:sad,m:mad,aed
m:mat,h:hat,k:cat,aet
k:can,f:fan,p:pan,aen
h:ham,dz:jam,rl:ram,aem
b:bag,rl:rag,t:tag,aeg

sh:shell,b:bell,f,fell,cap(e)l
p:pen,t:ten,m:men,h:hen,cap(e)n
rl:red,b:bed,sh:shed,cap(e)d
p:pet,dz:jet,cap(e)t

k:kick,ll:lick,s:sick,ch:chick,cap(i)k
ch:chin,p:pin,f:fin,cap(i)n
p:pig,cap(i)g
ll:lip,sh:ship,ch:chip,cap(i)p

p:pot,k:cot,h:hot,at
m:mop,t:top,k:cop,ap
s:sock,rl:rock,ll:lock,ak

h:hut,k:cut,^t
s:sun,rl:run,b:bun,^n
k:cub,t:tub,s:sub,^b
b:bug,rl:rug,h:hug,^g

Task 2 (blending onset & rimes & decoding nonsense words (need to add?) YES
10/11/99
Words taken from Task 6.
New words added in bold

w:wap,b:bap,f:fap,aep
v:vad,n:nad,w:wad,aed
z:zat,w:wat,y:yat,aet
h:han,sh:shan,j:yan,aen
v:vam,n:nam,c:cam,aem
p:pag,c:cag,v:vag,aeg
m:mab,z:zab,w:wab,aeb

f:fen,l:len,v:ven,cap(e)n
p:ped,s:sed,dz:jed,cap(e)d
t:tet,ch:chet,h:het,cap(e)t

ll:lin,h:hin,n:nin,cap(i)n
ll:lig,s:sig,k:kig,cap(i)g
v:vip,m:mip,f:fip,cap(i)p

z:zot,m:mot,ch:chot,at
f:fop,dz:jop,z:zop,ap
ch:chod,v:vod,d:dod,ad

s:sut,w:wut,ch,chut,^t
ll:lun,d:dun,z:zun,^n

```
v:vub,z:zub,m:mub,^b
f:fug,w:wug,sh,shug,^g
dz:jum,ll:lum,v:vum,^m
j:yup,g:gup,dz:jupv:vup,h:hup,^p
```

Task 3
Segmenting & Elision of Initial Consonant REAL & NONSENSE WORDS
Revised 10/11/99: removed all words ending in "ck" and "ll"
Words need to be sorted into Real & Nonsense (I think Matthew may have already done this, if not let me know and I will do it)
Dissimilar: select foils from different vowel sound family
Similar: select foils from same vowel sound family, different line

```
k:cap,m:map,ll:lap,n:nap,g:gap,w:wap,b:bap,f:fap,aep
b:back,s:sack,dz:jack,p:pack,rl:rack,d:dack,n:nack,aek
d:dad,s:sad,m:mad,h:had,ll:lad,w:wad,v:vad,n:bad,aed
m:mat,h:hat,k:cat,f:fat,s:sat,p:pat,z:zat,w:wat,j:yat,aet
k:can,f:fan,p:pan,v:van,rl:ran,ll:lan,h:han,aen
h:ham,dz:jam,j:yam,rl:ram,d:dam,v:vam,t:tam,n:nam,k:cam,aem
b:bag,rl:rag,t:tag,n:nag,s:sag,p:pag,h:hag,aeg
k:cab,ll:lab,t:tab,n:nab,g:gab,m:mab,z:zab,w:wab,aeb
```

```
sh:shell,b:bell,w:well,t:tell,j:yell,z:zell,rl:rell,cap(e)l
p:pen,t:ten,m:men,h:hen,d:den,f:fen,ll:len,cap(e)n
rl:red,sh:shed,b:bed,f:fed,ll:led,p:ped,s:sed,cap(e)d
w:wet,n:net,dz:jet,g:get,p:pet,s:set,t:tet,cap(e)t
p:peg,ll:leg,b:beg,w:weg,t:teg,d:deg,n:neg,cap(e)g
```

```
k:kick,ll:lick,s:sick,p:pick,t:tick,w:wick,z:zick,m:mick,cap(i)k
ch:chin,p:pin,f:fin,b:bin,t:tin,s:sin,ll:lin,m:min,cap(i)n
w:wig,p:pig,d:dig,f:fig,d:dig,ll:lig,s:sig,cap(i)g
ll:lip,sh:ship,z:zip,d:dip,t:tip,v:vip,m:mip,cap(i)p
b:bit,h:hit,rl:rit,p:pit,f:fit,s:sit,ll:lit,w:wit,v:vit,cap(i)t
p:pill,s:sill,b:bill,t:till,f:fill,w:will,h:hill,d:dill,m:mill,cap(i)l
d:dig,rl:rig,b:big,s:sig,h:hig,n:nig,w:wig,f:fig,ll,lig,cap(i)g
```

```
p:pot,k:cot,h:hot,t:tot,n:not,d:dot,z:zot,m:ot,at
m:mop,t:top,k:cop,p:pop,h:hop,b:bop,f:fop,dz:jop,ap
s:sock,rl:rock,ll:lock,d:dock,m:mock,t:tock,j:yock,v:vock,ak
rl:rob,k:cob,m:mob,h:hob,ll:lob,w:wob,g:gob,s:sob,ab
rl:rod,n:nod,k:cod,p:pod,s:sod,t:tod,j:yod,ad
```

```
n:nut,h:hut,k:cut,b:but,rl:rut,g:gut,s:sut,w:wut,^t
s:sun,g:gun,b:bun,rl:run,f:fun,ll:lun,d:dun,^n
k:cub,t:tub,s:sub,h:hub,rl:rub,v:vub,z:zub,^b
b:bug,rl:rug,h:hug,d:dug,m:mug,f:fug,w:wug,^g
d:duck,t:tuck,p:puck,m:muck,ll:luck,n:nuck,w:wuck,^k
g:gum,rl:rum,s:sum,b:bum,h:hum,dz:jum,ll:lum,^m
k:cup,p:pup,j:yup,g:gup,dz:jup,v:vup,h:hup,^p
m:mud,f:fud,s:sud,ll:lud,z:zud,d:dud,b:bud,^d
```

(REMOVED former Task 3 10/11/99)
Blending Onset-Rimes

Dissimilar: select foils from different vowel family, exclude those with same
onset
rl:ride,s:side,h:hide,aid
ll:line,p:pine,v:vine,ain
rl:rice,d:dice,m:mice,ais
t:tile,p:pile,f:file,ail
t:time,d:dime,ll:lime,aim
t:tire,w:wire,f:fire,air

w:wave,k:cave,sh:shave,ev
k:cake,rl:rake,ll:lake,ek
g:gate,d:date,k:kate
t:tape,k:cape,ep
k:cane,m:mane,en

h:hose,rl:rose,n:nose,oz
h:hole,p:pole,m:mole,ol
rl:rope,op
h:home,d:dome,om

Same rime: select foils from same line
rl:ride,s:side,h:hide,aid
ll:line,p:pine,v:vine,ain
rl:rice,d:dice,m:mice,ais
t:tile,p:pile,f:file,ail
t:time,d:dime,ll:lime,aim
t:tire,w:wire,f:fire,air

w:wave,k:cave,sh:shave,ev
k:cake,rl:rake,ll:lake,ek
g:gate,d:date,k:kate

h:hose,rl:rose,n:nose,oz
h:hole,p:pole,m:mole,ol

Same onset: select foils with same onset, same vowel family (whenever possible,
otherwise o.k to select from different vowel family)

rl:ride,h:hide,aid
ll:line,p:pine,ain
rl:rice,d:dice,m:mice,ais
t:tile,p:pile,ail
t:time,d:dime,ll:lime,aim
t:tire,air
b:bike,aik
k:kite,ait

k:cave,ev
k:cake,rl:rake,ll:lake,ek
d:date,k:kate
t:tape,k:cape,ep
k:cane,m:mane,en

h:hose,rl:rose,n:nose,oz
h:hole,p:pole,m:mole,ol
rl:robe,ob

```
rl:rope,op
h:home,d:dome,om
```

(REMOVED Former Task 4 10/11/99)
Segmenting & Elision of Initial Phoneme
Dissimilar: select foils from different vowel sound family
Similar: select foils from same vowel sound family, different line

```
rl:ride,s:side,h:hide,t:tide,b:bide,ll:lide,n:nide,z:zide,aid
ll:line,p:pine,v:vine,m:mine,d:dine,f:fine,s:sine,b:bine,ain
f:five,d:dive,ll:live,dz:jive,s:sive,p:pive,z:zive,aiv
rl:rice,d:dice,m:mice,n:nice,t:tice,b:bice,w:wice,ais
t:tile,p:pile,f:file,m:mile,n:nile,s:sile,k:kile,ail
t:time,d:dime,ll:lime,f:fime,rl:rime,z:zime,dz:jime,h:hime,aim
t:tire,w:wire,f:fire,h:hire,s:sire,b:bire,dz:jire,p:pire
b:bike,p:pike,h:hike,ll:like,rl:rike,v:vike,aik
k:kite,b:bite,d:dite,j:yite,ll:lite,n:nite,m:mite,rl:rite,v:vite,ait
```

```
w:wave,k:cave,sh:shave,rl:rave,p:pave,f:fave,ll:lave,ev
k:cake,rl:rake,ll:lake,b:bake,m:make,d:dake,dz:jake,ek
m:maze,h:haze,t:taze,f:faze,w:wazw,dz,jaze,ll:laze,b:baze,ez
k:cape,t:tape,n:nape,d:dape,ll:lape,z:zape,ep
g:gate,m:mate,rl:rate,f:fate,d:date,v:vate,b:bate,et
m:made,f:fade,w:wade,t:tade,j:yade,s:sade,ed
```

```
h:hose,rl:rose,n:nose,p:pose,w:wose,v:vose,b:bose,k:kose,oz
h:hole,p:pole,m:mole,f:fole,dz:jole,s:sole,rl:role,d:dole,ol
rl:rope,h:hope,n:nope,t:tope,j:yope,z:zope,ll:lope,op
rl:robe,d:dobe,t:tobe,f:fobe,h:hobe,p:pobe,ob
h:home,d:dome,k:kome,n:nome,p:pome
```

Task 4
Blending and decoding CVC Words
Revised 10/11/99 REMOVED words ending in "ck" and "ll"
dissimilar: select foils from different vowel family, with different first and
last phonemes
similar: select from same vowel family, match 1st or 3rd phoneme
```
cap,k,ae,p
map,m,ae,p
lap,ll,ae,p
back,b,ae,k
sack,s,ae,k
jack,dz,ae,k
dad,d,ae,d
sad,s,ae,d
mad,m,ae,d
mat,m,ae,t
hat,h,ae,t
cat,k,ae,t
can,k,ae,n
fan,f,ae,n
pan,p,ae,n
ham,h,ae,m
jam,dz,ae,m
yam,j,ae,m
bag,b,ae,g
```

```
rag,r1,ae,g
tag,t,ae,g


shell,sh,cap(e),l2
bell,b,cap(e),l2
well,w,cap(e),l2
pen,p,cap(e),n
ten,t,cap(e),n
men,m,cap(e),n
red,r1,cap(e),d
shed,sh,cap(e),d
b,b,cap(e),d
wet,w,cap(e),t
net,n,cap(e),t
jet,dz,cap(e),t


kick,k,cap(i),k
lick,l1,cap(i),k
sick,s,cap(i),k
chin,ch,cap(i),n
pin,p,cap(i),n
fin,f,cap(i),n
wig,w,cap(i),g
pig,p,cap(i),g
dig,d,cap(i),g
lip,l1,cap(i),p
ship,sh,cap(i),p
zip,z,cap(i),p


pot,p,a,t
cot,k,a,t
hot,h,a,t
mop,m,a,p
top,t,a,p
cop,k,a,p
sock,s,a,k
rock,r1,a,k
lock,l1,a,k


nut,n,^,t
hut,h,^,t
cut,k,^,t
sun,s,^,n
gun,g,^,n
bun,b,^,n
cub,k,^,b
tub,t,^,b
sub,s,^,b
bug,b,^,g
rug,r1,^,g
hug,h,^,g
duck,d,^,k
gum,g,^,m
cup,k,^,p
```

Task 5 (Blending and decoding nonsense words (add word list?) YES 10/11/99
(Words taken from Task 6 below)
wap,w,ae,p
bap,b,ae,p
fap,f,ae,p
dack,d,ae,k
nack,n,ae,k
vad,v,ae,d
nad,n,ae,d
wad,w,ae,d
zat,z,ae,t
wat,w,ae,t
yat,j,ae,t
lan,ll,ae,n
han,h,ae,n
vam,v,ae,m
nam,n,ae,m
cam,k,ae,m
pag,p,ae,g
cag,k,ae,g
mab,m,ae,b
zab,z,ae,b
wab,w,ae,b
zell,z,cap(e),l2
rell,rl,cap(e),l2
fen,f,cap(e),n
len,ll,cap(e),n
ped,p,cap(e),d
sed,s,cap(e),d
set,s,cap(e),t
tet,t,cap(e),t
zick,z,cap(i),k
mick,m,cap(i),k
lin,ll,cap(i),n
min,m,cap(i),n
lig,ll,cap(i),g
sig,s,cap(i),g
vip,v,cap(i),p
mip,m,cap(i),p
zot,z,a,t
mot,m,a,t
fop,f,a,p
jop,dz,a,p
mock,m,a,k
yock,j,a,k
vock,v,a,k
sut,s,^,t
wut,w,^,t
lun,ll,^,n
dun,d,^,n
vub,v,^,b
zub,z,^,b
fug,f,^,g
wug,w,^,g
nuck,n,^,k
jum,dz,^,m

```
lum,11,^,m
yup,j,^,p
gup,g,^,p
jup,dz,^,p
vup,v,^,p
hup,h,^,p
```

(REMOVED Task 6 10/11/99)
Blending CVCe Words
dissimilar: select foils from different vowel family, with different first and
last phonemes
similar: select from same vowel family, match 1st or 3rd phoneme

```
ride,r1,ai,d_e
side,s,ai,d_e
hide,h,ai,d_e
line,11,ai,n_e
pine,p,ai,n_e
vine,v,ai,n_e
rice,r1,ai,s_e
dice,d,ai,s_e
mice,m,ai,s_e
tile,t,ai,12_e
pile,p,ai,12_e
file,f,ai,12_e
time,t,ai,m_e
dime,d,ai,m_e
lime,11,ai,m_e
tire,t,ai,r2_e
wire,w,ai,r2_e
fire,f,ai,r2_e
```

```
wave,w e,v_e
cave,k,e,v_e
shave,sh,e,v_e
cake,k,e,k_e
rake,r1,e,k_e
lake,11,e,k_e
```

```
hose,h,o,z_e
rose,r1,o,z_e
nose,n,o,z_e
hole,h,o,12_e
pole,p,o,12_e
mole,m,o,12_e
```

TASK 6 Segmenting VC & CVC words and nonsense words into phonemes
Revised 10/11/99 to remove words ending in "ck" and "11" and all CVCe words;
sorted words into real and CVC words; added 5 new words to word list.

1 segment:
ae, e, b, k, d, cap(e), i, f, g, h, ai, cap(i), dz, sh, ch, k, 11, m, n, o, a,
p, r1, s, t, u, cap(u), v, w, j, z

2 segments:
REAL

```
aed,ae,d
aet,ae,t
aen,ae,n
aem,ae,m
cap(i)n,cap(i),n
10/11/99 added new words:
up,^,p
us,^,s
on,a,n
it,cap(I),t
ash,ae,sh

NONSENSE
aep,ae,p
aek,ae,k
aeg,ae,g
aeb,ae,b
cap(e)l,cap(e),12
cap(e)n,cep(e),n
cap(e)d,cap(e),d
cap(e)t,cap(e),t
cap(i)k,cap(i),k
cap(i)g,cap(i),g
cap(i)p,cap(i),p
at,a,t
ap,a,p
ak,ak
^t ,^,t
^n,^,n
^b,^,b
^g,^,g

aid,ai,d_e
ain,ai,n_e
ais,ai,s_e
ail,ai,12_e
aim,ai,m_e
air,ai,r2_e
aik,ai,k_e
ait,ai,t_e
ev,e,v_e
ek,e,k_e
et,e,t_e
ep,e,p_e
en,e,n_e
oz,o,z_e
ol,o,12_e
ob,o,b_e
op,o,p_e
om,o,m_e

3 segments:
REAL
cap,k,ae,p
map,m,ae,p
```

```
lap,ll,ae,p
nap,n,ae,p
gap,g,ae,p
back,b,ae,k
sack,s,ae,k
jack,dz,ae,k
rack,rl,ae,k
dack,d,ae,k
nack,n,ae,k
dad,d,ae,d
sad,s,ae,d
had,h,ae,d
lad,ll,ae,d
mad,m,ae,d
mat,m,ae,t
hat,h,ae,t
fat,f,ae,t
sat,s,ae,t
pat,p,ae,t
cat,k,ae,t
can,k,ae,n
fan,f,ae,n
pan,p,ae,n
van,v,ae,n
ran,rl,ae,n
lan,ll,ae,n
ham,h,ae,m
jam,dz,ae,m
yam,j,ae,m
ram,rl,ae,m
dam,d,ae,m
bag,b,ae,g
rag,rl,ae,g
tag,t,ae,g
nag,n,ae,g
sag,s,ae,g
pen,p,cap(e),n
ten,t,cap(e),n
hen,h,cap(e),n
den,d,cap(e),n
red,rl,cap(e),d
shed,sh,cap(e),d
bed,b,cap(e),d
fed,f,cap(e),d
led,ll,cap(e),d
chin,ch,cap(i),n
pin,p,cap(i),n
fin,f,cap(i),n
bin,b,cap(i),n
tin,t,cap(i),n
sin,s,cap(i),n
wig,w,cap(i),g
pig,p,cap(i),g
dig,d,cap(i),g
fig,f,cap(i),g
cab,k,ae,b
```

```
lab,ll,ae,b
tab,t,ae,b
nab,n,ae,b
gab,g,ae,b
mab,m,ae,b
wet,w,cap(e),t
net,n,cap(e),t
jet,dz,cap(e),t
get,g,cap(e),t
pet,p,cap(e),t
set,s,cap(e),t
lip,ll,cap(i),p
ship,sh,cap(i),p
zip,z,cap(i),p
dip,d,cap(i),p
tip,t,cap(i),p
pot,p,a,t
cot,k,a,t
hot,h,a,t
not,n,a,t
bug,b,^,g
rug,rl,^,g
hug,h,^,g
dug,d,^,g
mug,m,^,g
dot,d,a,t
mop,m,a,p
top,t,a,p
sun,s,^,n
gun,g,^,n
bun,b,^,n
run,rl,^,n
fun,f,^,n
cop,k,a,p
pop,p,a,p
hop,h,a,p
bop,b,a,p
nut,n,^,t
hut,h,^,t
cut,k,^,t
but,b,^,t
rut,rl,^,t
gut,g,^,t
```

NONSENSE
```
wap,w,ae,p
bap,b,ae,p
fap,f,ae,p
vad,v,ae,d
nad,n,ae,d
wad,w,ae,d
zat,z,ae,t
wat,w,ae,t
yat,j,ae,t
han,h,ae,n
vam,v,ae,m
```

```
tam,t,ae,m
nam,n,ae,m
cam,k,ae,m
pag,p,ae,g
cag,k,ae,g
zab,z,ae,b
wab,w,ae,b

shell,sh,cap(e),12
bell,b,cap(e),12
well,w,cap(e),12
tell,t,cap(e),12
yell,j,cap(e),12
zell,z,cap(e),12
rell,rl,cap(e),12
len,ll,cap(e),n
fen,f,cap(e),n
ped,p,cap(e),d
sed,s,cap(e),d
tet,t,cap(e),t

kick,k,cap(i),k
lick,ll,cap(i),k
sick,s,cap(i),k
pick,p,cap(i),k
tick,stcap(i),k
wick,w,cap(i),k
zick,z,cap(i),k
mick,m,cap(i),k
lin,ll,cap(i),n
min,m,cap(i),n
lig,ll,cap(i),g
sig,s,cap(i),g
vip,v,cap(i),p
mip,m,cap(i),p
zot,z,a,t
mot,m,a,t
fop,f,a,p
jop,dz,a,p
sock,s,a,k
rock,rl,a,k
lock,ll,a,k
dock,d,a,k
mock,m,a,k
tock,t,a,k
yock,j,a,k
vock,v,a,k

sut,s,^,t
wut,w,^,t
lun,ll,^,n
dun,d,^,n
cub,k,^,b
tub,t,^,b
sub,s,^,b
hub,h,^,b
```

```
rub,rl,^,b
vub,v,^,b
zub,z,^,b
fug,f,^,g
wug,w,^,g
duck,d,^,k
tuck,t,^,k
puck,p,^,k
muck,m,^,k
luck,ll,^,k
nuck,n,^,k
duck,d,^,k
gum,g,^,m
rum,rl,^,m
sum,s,^,m
bum,b,^,m
hum,h,^,m
jum,dz,^,m
lum,ll,^,m
cup,k,^,p
pup,p,^,p
yup,j,^,p
gup,g,^,p
jup,dz,^,p
vup,v,^,p
hup,h,^,p

ride,rl,ai,d_e
side,s,ai,d_e
hide,h,ai,d_e
tide,t,ai,d_e
bide,b,ai,d_e
lide,ll,ai,d_e
nide,n,ai,d_e
zide,z,ai,d_e
line,ll,ai,n_e
pine,p,ai,n_e
vine,v,ai,n_e
mine,m,ai,n_e
dine,d,ai,n_e
fine,f,ai,n_e
sine,s,ai,n_e
bine,b,ai,n_e
five,f,ai,v_e
dive,d,ai,v_e
live,ll,ai,v_e
jive,dz,ai,v_e
sive,s,ai,v_e
pive,p,ai,v_e
zive,z,ai,v_e
rice,rl,ai,s_e
dice,d,ai,s_e
nice,n,ai,s_e
tice,t,ai,s_e
fice,f,ai,s_e
bice,b,ai,s_e
```

```
mice,m,ai,s_e
tile,t,ai,l2_e
pile,p,ai,l2_e
file,f,ai,l2_e
pile,p,ai,l2_e
tile,t,ai,l2_e
mile,m,ai,l2_e
nile,n,ai,l2_e
kile,k,ai,l2_e
sile,s,ai,l2_e
time,t,ai,m_e
dime,d,ai,m_e
lime,l1,ai,m_e
fime,f,ai,m_e
rime,r1,ai,m_e
zime,z,ai,m_e
jime,dz,ai,m_e
hime,h,ai,m_e
tire,t,ai,r2_e
wire,w,ai,r2_e
fire,f,ai,r2_e
hire,h,ai,r2_e
sire,s,ai,r2_e
bire,b,ai,r2_e
jire,dz,ai,r2_e
pire,p,ai,r2_e
bike,b,ai,k_e
pike,p,ai,k_e
like,l1,ai,k_e
rike,r1,ai,k_e
vike,v,ai,k_e
kite,k,ai,t_e
bite,b,ai,t_e
dite,d,ai,t_e
lite,l1,ai,t_e
nite,n,ai,t_e
mite,m,ai,t_e
rite,r1,ai,t_e
vite,v,ai,t_e


wave,w e,v_e
cave,k,e,v_e
shave,sh,e,v_e
rave,r1,e,v_e
pave,p,e,v_e
fave,f,e,v_e
lave,l1,e,v_e
cake,k,e,k_e
rake,r1,e,k_e
lake,l1,e,k_e
bake,b,e,k_e
make,m,e,k_e
dake,d,e,k_e
jake,j,e,k_e
maze,m,e,z_e
```

```
haze,h,e,z_e
faze,f,e,z_e
waze,w,e,z_e
jaze,dz,e,z_e
laze,l,e,z_e
baze,b,e,z_e
cape,k,e,p_e
tape,t,e,p_e
nape,n,e,p_e
dape,d,e,p_e
lape,ll,e,p_e
zape,z,e,p_e
gate,g,e,t_e
mate,m,e,t_e
rate,rl,e,t_e
fate,f,e,t_e
date,d,e,t_e
vate,v,e,t_e
bate,b,e,t_e
```

```
hose,h,o,z_e
rose,rl,o,z_e
nose,n,o,z_e
pose,p,o,z_e
wose,w,o,z _e
vose,v,o,z_e
bose,b,o,z _e
kose,k,o,z _e
hole,h,o,12_e
pole,p,o,12_e
mole,m,o,12_e
fole,f,o,12_e
sole,s,o,12_e
dole,d,o,12_e
rope,rl,o,p_e
hope,h,o,p_e
nope,n,o,p_e
tope,t,o,p_e
yope,j,o,p_e
zope,z,o,p_e
lope,ll,o,p_e
robe,rl,o,b_e
dobe,d,o,b_e
tobe,t,o,b_e
fobe,f,o,b_e
hobe,h,o,b_e
pobe,p,o,b_e
```

```
Task 7 Spelling
Revised 10/11/99: Removed words ending in "ck" and "ll" and a few misc. words
from word list.
(Levels 1, 2 & 3: Spell VC, CVC REAL words)
aet,ae,t
aen,ae,n
aem,ae,m
```

```
cap(i)n,cap(i),n
cap,k,ae,p
map,m,ae,p
lap,l1,ae,p
nap,n,ae,p
gap,g,ae,p
back,b,ae,k
sack,s,ae,k
jack,dz,ae,k
rack,r1,ae,k
dad,d,ae,d
sad,s,ae,d
mad,m,ae,d
had,h,ae,d
lad,l1,ae,d
mat,m,ae,t
hat,h,ae,t
fat,f,ae,t
sat,s,ae,t
pat,p,ae,t
cat,k,ae,t
can,k,ae,n
fan,f,ae,n
pan,p,ae,n
van,v,ae,n
ran,r1,ae,n
ham,h,ae,m
jam,dz,ae,m
yam,j,ae,m
ram,r1,ae,m
dam,d,ae,m
bag,b,ae,g
rag,r1,ae,g
tag,t,ae,g
nag,n,ae,g
sag,s,ae,g
cab,k,ae,b
lab,l1,ae,b
tab,t,ae,b
nab,n,ae,b
gab,g,ae,b
shell,sh,cap(e),l2
bell,b,cap(e),l2
well,w,cap(e),l2
tell,t,cap(e),l2
yell,j,cap(e),l2
pen,p,cap(e),n
ten,t,cap(e),n
hen,h,cap(e),n
den,d,cap(e),n
red,r1,cap(e),d
shed,sh,cap(e),d
bed,b,cap(e),d
fed,f,cap(e),d
led,l1,cap(e),d
wet,w,cap(e),t
```

```
net,n,cap(e),t
jet,dz,cap(e),t
get,g,cap(e),t
pet,p,cap(e),t
kick,k,cap(i),k
lick,ll,cap(i),k
sick,s,cap(i),k
pick,p,cap(i),k
tick,stcap(i),k
wick,w,cap(i),k
chin,ch,cap(i),n
pin,p,cap(i),n
fin,f,cap(i),n
bin,b,cap(i),n
tin,t,cap(i),n
sin,s,cap(i),n
wig,w,cap(i),g
pig,p,cap(i),g
dig,d,cap(i),g
fig,f,cap(i),g
lip,ll,cap(i),p
ship,sh,cap(i),p
zip,z,cap(i),p
dip,d,cap(i),p
tip,t,cap(i),p
pot,p,a,t
cot,k,a,t
hot,h,a,t
not,n,a,t
dot,d,a,t
mop,m,a,p
top,t,a,p
cop,k,a,p
pop,p,a,p
hop,h,a,p
bop,b,a,p
sock,s,a,k
rock,rl,a,k
lock,ll,a,k
dock,d,a,k
tock,t,a,k
nut,n,^,t
hut,h,^,t
cut,k,^,t
but,b,^,t
rut,rl,^,t
gut,g,^,t
sun,s,^,n
gun,g,^,n
bun,b,^,n
run,rl,^,n
fun,f,^,n
cub,k,^,b
tub,t,^,b
sub,s,^,b
hub,h,^,b
```

```
rub,rl,^,b
bug,b,^,g
rug,rl,^,g
hug,h,^,g
dug,d,^,g
mug,m,^,g
duck,d,^,k
tuck,t,^,k
puck,p,^,k
muck,m,^,k
luck,ll,^,k
duck,d,^,k
gum,g,^,m
rum,rl,^,m
sum,s,^,m
bum,b,^,m
hum,h,^,m
cup,k,^,p
pup,p,^,p
yup,j,^,p
gup,g,^,p

(Levels 3 & 4 Spell VCe and CVCe words)
et,e,t_e
ep,e,p_e
ride,rl,ai,d_e
side,s,ai,d_e
hide,h,ai,d_e
tide,t,ai,d_e
bide,b,ai,d_e
line,ll,ai,n_e
pine,p,ai,n_e
vine,v,ai,n_e
mine,m,ai,n_e
dine,d,ai,n_e
fine,f,ai,n_e
five,f,ai,v_e
dive,d,ai,v_e
live,ll,ai,v_e
jive,dz,ai,v_e
rice,rl,ai,s_e
dice,d,ai,s_e
nice,n,ai,s_e
mice,m,ai,s_e
tile,t,ai,12_e
pile,p,ai,12_e
file,f,ai,12_e
pile,p,ai,12_e
tile,t,ai,12_e
mile,m,ai,12_e
nile,n,ai,12_e
time,t,ai,m_e
dime,d,ai,m_e
lime,ll,ai,m_e
rime,rl,ai,m_e
tire,t,ai,r2_e
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wire,w,ai,r2_e
fire,f,ai,r2_e
hire,h,ai,r2_e
bike,b,ai,k_e
pike,p,ai,k_e
like,l1,ai,k_e
kite,k,ai,t_e
bite,b,ai,t_e
lite,l1,ai,t_e
nite,n,ai,t_e
rite,r1,ai,t_e
wave,w e,v_e
cave,k,e,v_e
shave,sh,e,v_e
rave,r1,e,v_e
pave,p,e,v_e
cake,k,e,k_e
rake,r1,e,k_e
lake,l1,e,k_e
bake,b,e,k_e
make,m,e,k_e
jake,j,e,k_e
maze,m,e,z_e
haze,h,e,z_e
cape,k,e,p_e
tape,t,e,p_e
nape,n,e,p_e
gate,g,e,t_e
mate,m,e,t_e
rate,r1,e,t_e
fate,f,e,t_e
date,d,e,t_e
hose,h,o,z_e
rose,r1,o,z_e
nose,n,o,z_e
pose,p,o,z_e
hole,h,o,12_e
pole,p,o,12_e
mole,m,o,12_e
dole,d,o,12_e
rope,r1,o,p_e
hope,h,o,p_e
nope,n,o,p_e
robe,r1,o,b_e

(Levels 4, 5 & 6: Spell VC, CVC nonsense words)
aep,ae,p
aed,ae,d
aek,ae,k
aeg,ae,g
aeb,ae,b
cap(e)l,cap(e),12
cap(e)n,cep(e),n
cap(e)d,cap(e),d
cap(e)t,cap(e),t
cap(i)k,cap(i),k
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cap(i)g,cap(i),g
cap(i)p,cap(i),p
at,a,t
ap,a,p
ak,ak
^t ,^,t
^n,^,n
^b,^,b
^g,^,g
wap,w,ae,p
bap,b,ae,p
fap,f,ae,p
dack,d,ae,k
nack,n,ae,k
vad,v,ae,d
nad,n,ae,d
wad,w,ae,d
zat,z,ae,t
wat,w,ae,t
yat,j,ae,t
lan,l1,ae,n
han,h,ae,n
vam,v,ae,m
nam,n,ae,m
cam,k,ae,m
pag,p,ae,g
cag,k,ae,g
mab,m,ae,b
zab,z,ae,b
wab,w,ae,b
zell,z,cap(e),l2
rell,r1,cap(e),l2
fen,f,cap(e),n
len,l1,cap(e),n
ped,p,cap(e),d
sed,s,cap(e),d
set,s,cap(e),t
tet,t,cap(e),t
zick,z,cap(i),k
mick,m,cap(i),k
lin,l1,cap(i),n
min,m,cap(i),n
lig,l1,cap(i),g
sig,s,cap(i),g
vip,v,cap(i),p
mip,m,cap(i),p
zot,z,a,t
mot,m,a,t
fop,f,a,p
jop,dz,a,p
mock,m,a,k
yock,j,a,k
vock,v,a,k
sut,s,^,t
wut,w,^,t
lun,l1,^,n
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dun,d,^,n
vub,v,^,b
zub,z,^,b
fug,f,^,g
wug,w,^,g
nuck,n,^,k
jum,dz,^,m
lum,ll,^,m
yup,j,^,p
gup,g,^,p
jup,dz,^,p
vup,v,^,p
hup,h,^,p

(Levels 7 & 8: Spell VCe, CVCe nonsense words)
aid,ai,d_e
ain,ai,n_e
ais,ai,s_e
ail,ai,l2_e
aim,ai,m_e
air,ai,r2_e
aik,ai,k_e
ait,ai,t_e
ev,e,v_e
ek,e,k_e
en,e,n_e
oz,o,z_e
ol,o,l2_e
ob,o,b_e
op,o,p_e
om,o,m_e
lide,ll,ai,d_e
nide,n,ai,d_e
zide,z,ai,d_e
sine,s,ai,n_e
bine,b,ai,n_e
sive,s,ai,v_e
pive,p,ai,v_e
zive,z,ai,v_e
tice,t,ai,s_e
fice,f,ai,s_e
bice,b,ai,s_e
kile,k,ai,l2_e
sile,s,ai,l2_e
fime,f,ai,m_e
zime,z,ai,m_e
jime,dz,ai,m_e
hime,h,ai,m_e
bire,b,ai,r2_e
jire,dz,ai,r2_e
pire,p,ai,r2_e
rike,r1,ai,k_e
vike,v,ai,k_e
dite,d,ai,t_e
mite,m,ai,t_e
rite,r1,ai,t_e
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vite,v,ai,t_e
fave,f,e,v_e
lave,ll,e,v_e
dake,d,e,k_e
faze,f,e,z_e
waze,w,e,z_e
jaze,dz,e,z_e
laze,l,e,z_e
baze,b,e,z_e
dape,d,e,p_e
lape,ll,e,p_e
zape,z,e,p_e
vate,v,e,t_e
bate,b,e,t_e
wose,w,o,z_e
vose,v,o,z_e
bose,b,o,z_e
kose,k,o,z_e
fole,f,o,12_e
dole,d,o,12_e
tope,t,o,p_e
yope,j,o,p_e
zope,z,o,p_e
lope,ll,o,p_e
dobe,d,o,b_e
tobe,t,o,b_e
fobe,f,o,b_e
hobe,h,o,b_e
pobe,p,o,b_e
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TASK 8: BLENDING PHONEMES AND DECODING: CVCC WORDS (14)
Learning Objectives: The student will blend four phonemes presented at x second
intervals with or without corresponding graphemes into a word and will make a
response by selecting from a set of three response choices. The student will
decode CVCC words presented with no auditory cues and will make a response by
selecting from a set of three response choices. The phonetic saliency of the CC
blends will be controlled to facilitate skill development.
High saliency CC = fricative + stop
Low saliency CC = nasal + stop

"Hello. Bog Frogg here." "Let me show you how to play"
A: "d-e-s-k says desk"
A: "Now it's your turn. What word do you hear?"
A&G: "d-e-s-k says desk"
A&G: "Now it's your turn. What word do you hear and see?"
G: "This word is desk"
G: "Now it's your turn. What word do you see?"
No roll-overs on lilypads.

Activity Module 1

Task(8) Cuml. Score	Presentation	Interval	Phonetic Saliency	# Trials
1-Blend phonemes	auditory	.25 sec	high	%
2-Blend phonemes	auditory	1 sec	high	%

```
3-Blend phonemes  auditory            2 sec       high                              %
4-Blend phonemes  auditory & visual  .25 sec          high                              %
5-Blend phonemes  auditory & visual  1 sec       high                              %
6-Blend phonemes  auditory & visual  2 sec       high                              %
7-Decode CVCC words  visual            n/a        high                              %

8-Blend phonemes  auditory            .25 sec     low                               %
9-Blend phonemes  auditory            1 sec       low                               %
10-Blend phonemes auditory            2 sec       low                               %
11-Blend phonemes auditory & visual  .25 sec          low                              %
12-Blend phonemes auditory & visual  1 sec       low                               %
13-Blend phonemes auditory & visual  2 sec       low                               %
14-Decode CVCC words  visual           n/a        low                               %
```

Word List:
High Saliency:
nest, best, rest, west, pest, mask, task, bask, disk, risk, mist, list, fist,
fast, last, cast, mast, desk, dusk, musk, tusk, raft, gift, lift, sift, left,
gasp, lisp, wisp
Low Saliency: pant, lamp, camp, damp, ramp, sand, land, hand, band, bump, lump,
hump, milk, tent, went, dent, sent, pump, dump, vent, mint, lint, tint, mend,
lend, bend, send, jump

TASK 9: BLENDING PHONEMES AND DECODING: CCVC WORDS (14)
Learning Objectives: The student will blend four phonemes presented at x second
intervals with or without corresponding graphemes into a word and will make a
response by selecting from a set of three response choices. The student will
decode CCVC words presented with no auditory cues and will make a response by
selecting from a set of three response choices. The phonetic saliency of the CC
blends will be controlled to facilitate skill development.
High saliency CC = fricative + stop or fricative + glide
Low saliency CC = fricative + nasal or fricative + liquid
High saliency = CC blends do not include nasals or liquids
Low saliency = CC blends include nasals and liquids

"Hello. Bog Frogg here." "Let me show you how to play"
A: "s-t-o-p says stop"
A: "Now it's your turn. What word do you hear?"
A&G: "s-t-o-p says stop"
A&G: "Now it's your turn. What word do you hear and see?"
G: "This word is stop"
G: "Now it's your turn. What word do you see?"
No roll-overs on lilypads.

Activity Module 1

Task(9)	Presentation	Interval		Phonetic Saliency	# Trials
Cuml. Score					
1-Blend phonemes	auditory	.25 sec	high		%
2-Blend phonemes	auditory	1 sec	high		%
3-Blend phonemes	auditory	2 sec	high		%
4-Blend phonemes	auditory & visual	.25 sec		high	%
5-Blend phonemes	auditory & visual	1 sec	high		%
6-Blend phonemes	auditory & visual	2 sec	high		%

7-Decode CCVC words	visual	n/a	high		%
8-Blend phonemes	auditory	.25 sec	low		%
9-Blend phonemes	auditory	1 sec	low		%
10-Blend phonemes	auditory	2 sec	low		%
11-Blend phonemes	auditory & visual	.25 sec		low	%
12-Blend phonemes	auditory & visual	1 sec	low		%
13-Blend phonemes	auditory & visual	2 sec	low		%
14-Decode CCVC words	visual	n/a	low		%

High Saliency:
stop, step, skip, stab, stud, stub, stun, stem, skin, skit, skid, swim, spin, spit, spot, spud, scab, scan, swam, swum

Low Saliency:
Flag, flat, flap, flip, frog, sled, snag, snob, smug, slap, slab, slat, slam, slip, slid, slim, snap, snip

TASK 10: SEGMENTING CC BLENDS AND VCC, CVCC & CCVC WORDS INTO PHONEMES (6)
Learning Objective: The student will segment CC blends and VCC, CVCC and CCVC words into phonemes. Auditory feedback will or will not be provided during response. Graphemes will or will not be displayed during response. The phonetic saliency of the CC blends will be controlled to facilitate skill development.
  (programming note: 80% criterion here)
"Hello. Bog Frogg here. Click on the mouse once for each sound you hear. Let me show you how this is done."
A: "First, listen to the word..... desk. Then, click on the mouse once for each sound in the word, like this...d-e-s-k "
A: "Now it's your turn."
A&G: "First, listen to the word..... desk. Then, click on the mouse once for each sound in the word, like this...d-e-s-k"
A&G: "Now it's your turn."
G: "First, Listen to the word..... desk. Then, click on the mouse once for each sound in the word, like this...d-e-s-k "
G: "Now it's your turn."

Activity Module 3

Task(10) Trials	Phonetic Saliency	Auditory Feedback	Display Graphemes #
1-Segment phonemes %	high	yes	no
2-Segment phonemes %	high	yes	yes
3-Segment phonemes %	high	no	yes
4-Segment phonemes %	low	yes	no
5-Segment phonemes %	low	yes	yes
6-Segment phonemes %	low	no	yes

CC
High: st, sk, sp, ft, sw, sc
Low: sn, sm ,sl, sr, fl, fr

VCC word
High: ask, asp, aft
Low: imp, amp, end, and, ant

CVCC & CCVC words (use words from Tasks 8 & 9)

TASK 11: SPELLING VCC, CVCC & CCVC WORDS (12)
Learning Objective: The student will spell VCC, CVCC and CCVC words by typing
letters on the keyboard. Auditory cues and feedback will or will not be
available during the encoding response.
"Hello. Bog Frogg here. Let me show you how to play.
A: "First, listen to the word..... stop. Then, use the keyboard to spell the
word.
A: "Now it's your turn."
No A: "First, listen to the word..... stop. Then, use the keyboard to spell the
word.
No A: "Now it's your turn."
Auditory cues = roll-overs
Auditory Feedback = play sound when typed in by user.
Activity Module 4

Task(11) Cuml. Score	Phonetic Saliency	Auditory Cues	Auditory Feedback	# Trials
1-Spell word	high	yes	yes	%
2-Spell word	high	no	yes	%
3-Spell word	high	no	no	%
4-Spell word	low	yes	yes	%
5-Spell word	low	no	yes	%
6-Spell word	low	no	no	%

Use VCC, CVCC, CCVC words from Task 10

Client-Attorney Privilege

R & S
Letter Express
Revised 4/28/99

Revised 7/8/99

Revised 8/3/99 DEVELOPMENT NOTES (J-C)

Revised 8/6/99 Instruction Codes added (TC)

Revised 8/9/99 Minor re-wording of learning objectives for Tasks 4 & 5 and Tasks 10 & 11; Major revision to list of similar and dissimilar phonemes for Tasks 4 & 5 and Tasks 10 & 11; added word lists for Tasks 10-13 to very end of file. (JMW)

Revised 8/20/99 Instruction Codes (TC)

Revised 8/25/99 Added program responses following incorrect answer by user (JMW) **

9/1/99 J-C revised instructions

9/7/99 J-C revised instructions

Revised 9/12/99 Revised word list for Tasks 10-13; added one more level at end of task for Tasks 10-13; changed key word for long vowel e (JMW)

Word Lists for Tasks 10-12 (Former Task 12 has been deleted. Former Task 13 is now Task 12)

9/12/99 Revisions in bold.

Revised 9/22/99 Additions in bold.

Task 10: Some words removed from list. No new words added.

Task 11: Some words removed from list. New words added for sh, ch, th.

6.   Task 12: This task has been deleted from game

Formerly Task 13, now Task 12: Some words deleted. Words re-arranged for added levels of similar and dissimilar sounds. Some new nonsense words added.(JMW)

TOKEN =➔ J-C

Primary Skills:　　Auditory and Phoneme Discrimination, Phoneme Identification, Recognition of Sound and Sound Position in Word, Word Closure, Phoneme Segmentation, Spelling

ACTIVITY MODULE 1: Auditory memory and phoneme/sound-to-letter/letter-to-sound match with variable matrix size.

ACTIVITY MODULE 2: Alphabetic order

ACTIVITY MODULE 3: Alphaphonetics; match sound to letter

ACTIVITY MODULE 4: Type letter that matches sound on keyboard.

ACTIVITY MODULE 5: Selecting beginning, ending, vowel sound and/or letter. Change one letter in word to create a new word.

STEP 1 (116 levels of play; 13 skill sets)

TASK 1: ALPHABETIC ORDER (6)

Learning Objective: When presented with a letter selected from the beginning, middle or end of the alphabet, the student will identify the next letter of the alphabet by typing a response on the keyboard. Upper case or lower case graphemes will be displayed.

GAME DESIGN: TASK 1
Activity Module 2

Begin round by playing Alphabet song, display letters on screen as they are spoken in song. Clear letters from puffs of smoke. Then, randomly select a starting letter in beginning, middle or ending 1/3 of alphabet. Say name of letter. "A" Prompt user to enter next letter. "Which letter comes after A?" If last correct entry = Z and plays remain in the round of play, prompt "That's the last letter of the alphabet. What's the first letter in the alphabet?"). Continue play with letter A.
SCORING CRITERION: TASK 1 = 80% within round of play.

AUDIO SCRIPT: TASK 1

IN1B>> Alphabet Song
INTRO1>>"Let's practice the order of the letters of the alphabet using uppercase letters.".(levels 1-3)
INTRO2>>"Let's practice the order of the letters of the alphabet using lowercase letters.". (levels 4-6)
 (Record each letter of alphabet) "A", "B", etc.
IN1A>> Which letter comes after....(on first play of round)
IN1E"Type the letter on your keyboard"
IN1C>> "That's the last letter of the alphabet. What's the first letter in the alphabet?"
** Upon incorrect response: Highlight first letter, play audio 'A' followed by highlight of second letter and play audio.'B'
IN1D>>M..."comes after"...L
Incorrect answers-no sfx

Task (1) Score	Start Position	Grapheme Display	# Trials	Cuml.
7. 1-Identify alphabetic order	beginning	upper case		
8. 2-Identify alphabetic order	middle	upper case		
9. 3-Identify alphabetic order	end	upper case		
10. 4-Identify alphabetic order	beginning	lower case		
11. 5-Identify alphabetic order	middle	lower case		
12. 6-Identify alphabetic order	end	lower case		

TASK 2: MATCHING SOUNDS WITH LETTERS: LONG VOWELS (8)
Learning Objective: When presented with a phoneme sound, the student will select the corresponding letter from a set of response choices displayed on the screen. An associated word will

or will not be displayed. Auditory cues will or will not be available. In this task, phoneme sounds will be limited to the most common long vowel sound-symbol associations for the 5 vowels of the English alphabet.

13. GAME DESIGN: TASK 2

Activity Module 3

Begin round with Alphaphonetics song, displaying each letter as its corresponding sound is spoken in the song. Then, gray out those letters that will not be used in the round of play. Present a sound and instruct user to click on corresponding letter(in cloud), one of the "active" letters. When auditory cues available, user is able to roll-over active letters to hear sound.
SCORING CRITERION: TASK 2 = 4/2

AUDIO SCRIPT: TASK 2
IN2A>> "Let's practice the long vowel sounds"
IN2B>>"Which letter says....
IN2C>>"as in...
>>/ju/.... 'unicorn'"
>>/e/..... 'ape'"
>>/i/..... 'eel' " **CHANGE KEY WORD TO "EAGLE" 9/12/99**
>>/ai/..... 'ice'"
>>/o/..... 'open'

Task (2) Cuml. Score	Auditory Cue	Associated Word	Case	# Trials
14. 7-Match phoneme & symbol	yes	yes	upper	
15. 8-Match phoneme & symbol	no	yes	upper	
16. 9-Match phoneme & symbol	yes	no	upper	
17. 10-Match phoneme & symbol	no	no	upper	
18. 11-Match phoneme & symbol	yes	yes	lower	
19. 12-Match phoneme & symbol	no	yes	lower	
20. 13-Match phoneme & symbol	yes	no	lower	
21. 14-Match phoneme & symbol	no	no	lower	

B55

TASK 3: MATCHING SOUNDS WITH LETTERS: SHORT VOWELS (8)

<u>Learning Objective</u>: When presented with a phoneme sound, the student will select the corresponding letter from a set of response choices displayed on the screen. An associated word will or will not be displayed. Auditory cues will or will not be available. In this task, phoneme sounds will be limited to the most common short vowel sound-symbol associations for the 5 vowels of the English alphabet.

22. GAME DESIGN: TASK 3

<u>Activity Module 3</u>

Begin round with Alphaphonetics song, displaying each letter as its corresponding sound is spoken in the song. Then, gray out those letters that will not be used in the round of play. Present a sound and user has to click on corresponding letter, one of the "active" letters. When auditory cues available, user is able to roll-over active letters to hear sound.

SCORING CRITERION: TASK 3 = 4/2

AUDIO SCRIPT: TASK 3

IN3A>> "Let's practice the short vowel sounds"

IN3B>>"Which letter says....

IN3C>>"as in...

>>/ae/..... 'apple'"

>>cap/e/..... 'egg'"

>> cap/i/..... 'igloo'"

>>/a/..... 'ox'"

>>/^/..... 'umbrella'"

"Which letter says..... /ae/   cap(e) cap(I) /a/   /^/

* Upon incorrect response (if associated word icon is displayed): Highlight letter, play audio 'ae' followed by highlight of displayed word icon and play audio 'apple'

** Upon incorrect response (if associated word icon is not displayed): Highlight letter, play audio 'ae'

Task (3) Score	Auditory Cue	Associated Word	Case	# Trials	Cuml.
23. 15-Match phoneme & symbol	yes	yes	upper		
24. 16-Match phoneme & symbol	no	yes	upper		
25. 17-Match phoneme & symbol	yes	no	upper		
26. 18-Match phoneme & symbol	no	no	upper		
27. 19-Match phoneme & symbol	yes	yes	lower		
28. 20-Match phoneme & symbol	no	yes	lower		

29. 21-Match phoneme & symbol	yes	no	lower
30. 22-Match phoneme & symbol	no	no	lower

TASK 4: MATCHING SOUNDS WITH LETTERS: CONSONANTS & UPPER CASE LETTERS (8)

Learning Objective: When presented with a phoneme sound, the student will select the corresponding upper case letter from a set of response choices displayed on the screen. An associated word will or will not be displayed. Auditory cues will or will not be available. Response choices will be phonetically similar or phonetically dissimilar. In this task, phoneme sounds will be limited to the most common sound-symbol associations for the 21 consonant letters of the English alphabet and three common digraphs: sh, ch, th

31. GAME DESIGN: TASK 4

Activity Module 3

Begin round with Alphaphonetics song, displaying each letter as its corresponding sound is spoken in the song. Then, gray out those letters that will not be used in the round of play. Present a sound and user has to click on corresponding letter, one of the "active" letters. When auditory cues available, user is able to roll-over active letters to hear sound.

SCORING CRITERION: TASK 4 = 4/2

AUDIO SCRIPT: TASK 4
IN4A>> "Let's practice the consonant sounds with upper case letters"
IN4B>>"Which letter says....
IN4C>>"as in...
IN4D>>/b/..... as in 'bell'"
IN4E>>/k/..... as in 'cat'"
IN4F>>/d/..... as in 'dog'"
IN4G>> /f/..... as in 'fox'"
IN4H>>/g/..... as in 'gas'"
IN4I>>/h/..... as in 'hat'"
IN4J>>/dz/..... as in 'jam'"
IN4K>>/k/..... as in 'kite'"
IN4L>> /l/..... as in 'log'"
IN4M>>/m/..... as in 'mop'"
IN4N>> /n/..... as in 'net'"
IN4O>>/p/..... as in 'pig'"
IN4P>> /kw/..... as in 'queen'"   Display letter Q as Q^U
IN4Q>> /r/..... as in 'rabbit'"
IN4R>>/s/..... as in 'sun'"
IN4S>> /t/..... as in 'tent'"
IN4T>> /v/..... as in 'van'"
IN4U>> /w/..... as in 'wagon'"

IN4V>> /ks/..... as in 'ax'"
IN4W>> /j/..... as in 'yoyo'"
IN4X>> /z/..... as in 'zebra'"
IN4Y>>/sh/..... as in "shoe"
IN4Z >>/ch/..... as in 'cheese"
IN4ZZ >>/th/..... as in 'thumb"

** Upon incorrect response (if associated word icon is displayed): Highlight letter, play audio 'b' followed by highlight of displayed word icon and play audio 'bell'
** Upon incorrect response (if associated word icon is not displayed): Highlight letter, play audio 'b'

Special Cases for phoneme only presentation:
/k/ accept "c" or "k", unless picture displayed; then correct response must correspond with picture
/dz/ if response = g, IN4D "Yes, sometimes letter g says /dz/ but usually letter g says /g/. Which letter usually says /dz/?
/s/ if response = c,IN4E "Yes, sometimes letter c says /s/ but usually letter c says /c/. Which letter usually says /s/?

Exclude on same trails (when no associated word):
32. m n, ng

f, th

Phoneme: [similar], [dissimilar]: SET 1 for Tasks 4 & 5
Similar = differs by voicing OR place ONLY
Dissimilar = differs by manner, may also differ by voicing and/or place
Exception: for affricates , similar = differs by voicing only, or manner only, but manner of foils is limited to stop, fricative; dissimilar = differs by manner, other than stop, fricative
Exception: for [kw, ks], similar = either of two phonemes that form sound associated with alphabetic letter; dissimilar = differs in place from either of two phonemes that form sound associated with alphabetic letter.

b: [p,d,g], [z, v, l, r, j, w, m, n]
p: [b,t,k], [s, f, sh, ch, th, l, r, j, w, m, n]
t: [d,p,k], [s, f, sh, ch, th, l, r, j, w, m, n]
d: [t,b,g], [z, v, l, r, j, w, m, n]
k: [g,p,t], [s, f, sh, ch, th, l, r, j, w, m, n]
g: [k,d,b], [z, v, l, r, j, w, m, n]

s: [z,f,sh,th], [p,t,k,l,r,j,w,m,n,kw]
z: [s,v], [b,d,g,l,r,j,w,m,n,kw]
f: [v,s,sh,th], [p,t,k,l,r,j,w,m,n,kw]
v: [f,z], [b,d,g,l,r,j,w,m,n,kw]
sh: [s,f,th], [p,t,k,l,r,j,w,m,n,kw]
th: [s,f,sh], [p,t,k,l,r,j,w,m,n,kw]
h: [f,s,sh,th] [p,t,k,l,r,j,w,m,n,kw]

ch: [dz,sh,t], [l,r,j,w,m,n]
dz: [ch,d], [l,r,j,w,m,n]

l: [r,j,w], [b,d,g,z,v,dz,m,n,ks]
r: [l,j,w], [b,d,g,z,v,dz,m,n,ks]
j: [l,r,w], [b,d,g,z,v,dz,m,n,ks]
w: [l,r,j], [b,d,g,z,v,dz,m,n,ks]

kw: [k,w], [m,n,ch,dz,s,z,f,v,sh,th,h]
ks: [k,s], [ch,dz,l,r,j,w,m,n]

m: [n], [b,d,g,z,v,dz,l,r,j,w,ks,kw]
n: [m], b,d,g,z,v,dz,l,r,j,w,ks,kw]

Task (4)	Aud. Cue	Assoc. Word	Choices	# Trials	Cuml. Score
33. 23-Match phoneme & symbol	yes	yes	dissimilar		
34. 24-Match phoneme & symbol	yes	yes	similar		
35. 25-Match phoneme & symbol	no	yes	dissimilar		
26-Match phoneme & symbol	no	yes	similar		
36. 27-Match phoneme & symbol	yes	no	dissimilar		
37. 28-Match phoneme & symbol	yes	no	similar		
38. 29-Match phoneme & symbol	no	no	dissimilar		
30-Match phoneme & symbol	no	no	similar		

TASK 5: MATCHING SOUNDS WITH LETTERS: CONSONANTS & LOWER CASE LETTERS (8)
Learning Objective: When presented with a phoneme sound, the student will select the corresponding lower case letter from a set of response choices displayed on the screen. An associated word will or will not be displayed. Auditory cues will or will not be available. Response choices will be phonetically-similar or dissimilar. In this task, phoneme sounds will be limited to the most common sound-symbol associations for the 21 consonant letters of the English alphabet and three common digraphs: sh, ch, th

39. GAME DESIGN: TASK 5

Activity Module 3

Begin round with Alphaphonetics song, displaying each letter as its corresponding sound is spoken in the song. Then, gray out those letters that will not be used in the round of play. Present a sound and user has to click on corresponding letter, one of the "active" letters. When auditory cues available, user is able to roll-over active letters to hear sound.
SCORING CRITERION: TASK 5 = 4/2

AUDIO SCRIPT: TASK 5
IN5A>> "Let's practice the consonant sounds with lower case letters"
IN5B>>"Which letter says...... (same as Task 4 above)
IN5C>> "as in"
** Upon incorrect response (if associated word icon is displayed): Highlight letter, play audio 'b' followed by highlight of displayed word icon and play audio 'bell'
** Upon incorrect response (if associated word icon is not displayed): Highlight letter, play audio 'b'

Special Cases for phoneme only presentation: (same as Task 4 above)

Phoneme: [similar], [dissimilar] SET 1
(Same as Task 4 above)

Task (5)	Aud. Cue	Assoc. Word	Choices	# Trials	Cuml. Score
40. 31-Match phoneme & symbol	yes	yes	dissimilar		
41. 32-Match phoneme & symbol	yes	yes	similar		
42. 33-Match phoneme & symbol	no	yes	dissimilar		
34-Match phoneme & symbol	no	yes	similar		
43. 35-Match phoneme & symbol	yes	no	dissimilar		
44. 36-Match phoneme & symbol	yes	no	similar		
45. 37-Match phoneme & symbol	no	no	dissimilar		
38-Match phoneme & symbol	no	no	similar		

TASK 6: SELECTING LETTERS ON KEYBOARD TO MATCH PHONEME SOUNDS (9)
Learning Objective: When presented with a phoneme sound, the student will type the corresponding letter on the keyboard. The grapheme will or will not be displayed on screen to facilitate keyboard response. In this task, phoneme sounds will be limited to the most common sound-symbol associations for the 26 letters of the English alphabet and four common digraphs: th, ch, sh, wh

46. GAME DESIGN: TASK 6

a. Activity Module 4

User is instructed to type the letter or letters that represent the sound they hear. Display grapheme = display grapheme in puff of smoke. Display grapheme second puff of smoke in upon keyboard entry.

Special Cases for phoneme only presentation:
/k/ accept "c" or "k"
/dz/ if response = g, IN6D "Yes, sometimes letter g says /dz/ but usually letter g says /g/. Which letter usually says /dz/?
/s/ if response = c, IN6DE"Yes, sometimes letter c says /s/ but usually letter c says /c/. IN6DFWhich letter usually says /s/?
/m, n/ /v, thv/ /f, th/ interchangable??

AUDIO SCRIPT: TASK 6
INTRO>>"The Letter Express is ready to roll!"
IN6A>>"Use the keyboard to type the letter or letters of the sound you here."
DEMO>>"Watch, I'll show you....."
PROMPT>>"Now it's your turn."
IN6C>>"Type the letter or letters that says /ae/"
"Type the letter that says "/e/"
"Type the letter that says /b/"
"Type the letter that says /k/"
"Type the letter that says /d/"
"Type the letter that says cap/e/"
"Type the letter that says /i/"
"Type the letter that says /f/"
"Type the letter that says /g/"
"Type the letter that says /h/"
"Type the letter that says cap/i/"
"Type the letter that says /ai/"
"Type the letter that says /dz/"
"Type the letter that says /k/"
"Type the letter that says /l/"
"Type the letter that says /m/"
"Type the letter that says /n/"
"Type the letter that says /a/"
"Type the letter that says /o/"
"Type the letter that says /p/"
"Type the letters that say /kw/"
"Type the letter that says /r/"
"Type the letter that says /s/"
"Type the letter that says /t/"
"Type the letter that says /^/"
"Type the letter that says /u/"

"Type the letter that says /v/"
"Type the letter that says /w/"
"Type the letter that says /ks/"
"Type the letter that says /j/"
"Type the letter that says /z/"
"Type the letters that say /sh/"
"Type the letters that say /ch/"
"Type the letters that say /th/"
"Type the letters that say /hw/"

** Upon incorrect response: Display (& flash?) correct letter and play audio 'b'

SCORING CRITERION: TASK 6 = 4/2

Task (6)	Graphemes Displayed	# Trials	Cuml. Score
39-Type letter for long vowel phoneme	upper case		
40-Type letter for long vowel phoneme	lower case		
41-Type letter for long vowel phoneme	none		
42-Type letter for short vowel phoneme	upper case		
43-Type letter for short vowel phoneme	lower case		
44-Type letter for short vowel phoneme	none		
45-Type letter(s) for consonant phoneme	upper case		
46-Type letter(s) for consonant phoneme	lower case		
47-Type letter(s) for consonant phoneme	none		

TASK 7: MATCHING PHONEME SOUNDS, SOUNDS WITH LETTERS & LETTERS WITH SOUNDS: LONG VOWELS (9)

Learning Objective: When presented with a 2x4, 3x4 or 3x6 matrix the student will recall and match pairs of long vowel phonemes and will recall and match long vowel phonemes with upper case and lower case graphemes in a timed (3 minute) task.

AUDIO SCRIPT: TASK 7
INTRO>>"The Letter Express is ready to roll!"
IN7A>>"Click on my puffs of smoke -- to find -- the matching long vowel sounds."
DEMO>>"Watch, I'll show you....."
PROMPT>> "Now it's your turn."
IN7B>> "How many sounds can you match before I have to go?"
IN7C>> "How many sounds can you match with upper case letters before I have to go?"
IN7D>> "How many sounds can you match with lower case letters before I have to go?"
KUDO>>"Good job! Now it's time for me to roll!"

B62

** Upon incorrect response: no audio, no display of correct answer. It's important to delay any audio (sfx, etc.) for 1 full second (maybe 1.5 seconds if that doesn't seem to make the game drag) after either an incorrect or correct response so as not to immediately wipe-out the auditory image held in short term memory

GAME DESIGN: TASK 7
Engine comes on screen, idles for 3 minutes (time may be adjusted based on field testing), blows puffs of smoke. Game scoring: Counter tracks number of matches: 1 point for match; -1 point if no match when match was previously displayed; If x number of points within 3 minutes, cool animation. Otherwise, trains simply rolls off screen. Performance Scoring: If match and one of pair had previously been displayed = correct; If no match and one of pair had previously been displayed = incorrect. Discard all others from score calculation.

b.   Activity Module 1

Match phoneme sounds w/out letters displayed (graphemes = none)
Match phoneme sounds w/ upper case letters displayed (letter displayed on one puff of pair; phoneme played on other puff of pair).
Match phoneme sounds w/ lower case letters displayed (letter displayed on one puff of pair; phoneme played on other puff of pair).
Programming note: Use restrictions on array of sounds as used in Karloons and Calling All Engines. For example, exclude m & n in same matrix.
SCORING CRITERION: TASK 7 = 80% within round of play.

Task (7)	Array Size	Graphemes	# Trials	Cuml. Score
48-Recall & match long vowel sounds	8	none		%
49-Recall & match long vowel sounds	12	none		%
50-Recall & match long vowel sounds	18	none		%
51-Recall & match long vowel sound & symbol	8	upper case		%
52-Recall & match long vowel sound & symbol	12	upper case		%
53-Recall & match long vowel sound & symbol	18	upper case		%
54-Recall & match long vowel sound & symbol	8	lower case		%
55-Recall & match long vowel sound & symbol	12	lower case		%
56-Recall & match long vowel sound & symbol	18	lower case		%

TASK 8: MATCHING PHONEME SOUNDS, SOUNDS WITH LETTERS & LETTERS WITH SOUNDS: SHORT VOWELS (9)
Learning Objective: When presented with a 2x4, 3x4 or 3x6 matrix of phonetically-similar phonemes, the student will recall and match pairs of long vowel phonemes and will recall and match short vowel phonemes with upper case and lower case graphemes in a timed (3 minute) task.

AUDIO SCRIPT: TASK 8
INTRO>>"The Letter Express is ready to roll!"
IN8A>>"Click on my puffs of smoke -- to find -- the matching short vowel sounds."

B63

DEMO>>"Watch, I'll show you....."

PROMPT>>"Now it's your turn."

IN8B>> "How many sounds can you match before I have to go?"

IN8C>> "How many sounds can you match with upper case letters before I have to go?"

IN8D>> "How many sounds can you match with lower case letters before I have to go?"

KUDO>>"Good job! Now it's time for me to roll!"

** Upon incorrect response: no audio, no display of correct answer. It's important to delay any audio (sfx, next stim, etc.) for 1 full second (maybe 1.5 seconds if that doesn't seem to make the game drag) after either an incorrect or correct response so as not to immediately wipe-out the auditory image held in short term memory

GAME DESIGN: TASK 8

Engine comes on screen, idles for 3 minutes (time may be adjusted based on field testing), blows puffs of smoke. For each correct response, coal drops from chute. Game scoring: Counter tracks number of matches: 1 point for match; -1 point if no match when match was previously displayed; If x number of points within 3 minutes, cool animation. Otherwise, trains simply rolls off screen. Performance Scoring: If match and one of pair had previously been displayed = correct; If no match and one of pair had previously been displayed = incorrect. Discard all others from score calculation.

c.   Activity Module 1

Match phoneme sounds w/out letters displayed (graphemes = none)

Match phoneme sounds w/ upper case letters displayed (letter displayed on one puff of pair; phoneme played on other puff of pair).

Match phoneme sounds w/ lower case letters displayed (letter displayed on one puff of pair; phoneme played on other puff of pair).

Programming note: Use restrictions on array of sounds as used in Karloons and Calling All Engines. For example, exclude m & n in same matrix. SCORING CRITERION: TASK 8 = 80% within round of play.

Task (8)	Array Size	Graphemes	# Trials	Cuml. Score
57-Recall & match short vowel sounds	8	none		%
58-Recall & match short vowel sounds	12	none		%
59-Recall & match short vowel sounds	18	none		%
60-Recall & match short vowel sound & symbol	8	upper case		%
61-Recall & match short vowel sound & symbol	12	upper case		%
62-Recall & match short vowel sound & symbol	18	upper case		%
63-Recall & match short vowel sound & symbol	8	lower case		%
64-Recall & match short vowel sound & symbol	12	lower case		%

B64

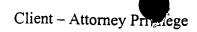65-Recall & match short vowel sound & symbol   18   lower case
    %

TASK 9: MATCHING PHONEME SOUNDS, SOUNDS WITH LETTERS & LETTERS WITH SOUNDS: CONSONANTS (9)

<u>Learning Objective</u>: When presented with a 2x4, 3x4 or 3x6 matrix of phonetically-similar phonemes, the student will recall and match pairs of consonant phonemes and will recall and match consonant phonemes with upper case and lower case graphemes in a timed (3 minute) task.

AUDIO SCRIPT: TASK 9
INTRO>>"The Letter Express is ready to roll!"
IN9A>>"Click on my puffs of smoke -- to find -- the matching consonant sounds."
DEMO>>"Watch, I'll show you....."
PROMPT>>"Now it's your turn."
IN9B>> "How many sounds can you match before I have to go?"
 IN9C>> "How many sounds can you match with upper case letters before I have to go?"
IN9D>> "How many sounds can you match with lower case letters before I have to go?"
KUDO>> "Good job! Now it's time for me to roll!"
** Upon incorrect response: no audio, no display of correct answer. It's important to delay any audio (sfx, etc.) for 1 full second (maybe 1.5 seconds if that doesn't seem to make the game drag) after either an incorrect or correct response so as not to immediately wipe-out the auditory image held in short term memory

GAME DESIGN: TASK 9
Engine comes on screen, idles for 3 minutes (time may be adjusted based on field testing), blows puffs of smoke. For each correct response, coal drops from chute. Game scoring: Counter tracks number of matches: 1 point for match; -1 point if no match when match was previously displayed; If x number of points within 3 minutes, cool animation. Otherwise, trains simply rolls off screen.
Performance Scoring: If match and one of pair had previously been displayed = correct; If no match and one of pair had previously been displayed = incorrect. Discard all others from score calculation.
d.   Activity Module 1

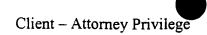Match phoneme sounds w/out letters displayed (graphemes = none)
Match phoneme sounds w/ upper case letters displayed (letter displayed on one puff of pair; phoneme played on other puff of pair).
Match phoneme sounds w/ lower case letters displayed (letter displayed on one puff of pair; phoneme played on other puff of pair).
Programming note: Use restrictions on array of sounds as used in Karloons and Calling All Engines. For example, exclude m & n in same matrix.
9/12/99 Exclusions: f-th, m-n, c-k, s-z, s-c, j-g
SCORING CRITERION: TASK 9 = 80% within round of play.

Task (9)	Array Size	Graphemes	# Trials	Cuml. Score

66-Recall & match consonant sounds	8	none	%
67-Recall & match consonant sounds	12	none	%
68-Recall & match consonant sounds	18	none	%
69-Recall & match consonant sound & symbol	8	upper case	%
70-Recall & match consonant sound & symbol	12	upper case	%
71-Recall & match consonant sound & symbol	18	upper case	%
72-Recall & match consonant sound & symbol	8	lower case	%
73-Recall & match consonant sound & symbol	12	lower case	%
74-Recall & match consonant sound & symbol	18	lower case	%

47. TASK 10: IDENTIFYING BEGINNING CONSONANT SOUNDS (13)

Learning Objective: The student will identify the beginning consonant phoneme of a real or nonsense CVC or CVCe word. The student will select a response from a set of three phonetically similar or phonetically dissimilar response choices or by typing a letter on the keyboard. The student will manipulate phonemes and letters to spell new CVC and CVCe words.

AUDIO SCRIPT: TASK 10

INTRO>>"The Letter Express is ready to roll!"

IN10A>>"Which puff of smoke -- has the sound you hear -- at the beginning of....."

IN10B>>"Click on the first letter in....."

IN10C>>Use the keyboard to type -- the first letter in..."

IN10D>>"Use the keyboard to change ...(IN10D) to ....."

DEMO>> "Watch, I'll show you....."

PROMPT>> "Now it's your turn

** Upon incorrect response: Display (and flash?) correct letter and play audio of target letter 'c' followed by all segments 'c-a-t' followed by full word "cat". Highlight each letter as its sound plays.

** Upon incorrect response (manipulate, level 86): Highlight and play audio for each segment of original word 'c-ae-t' , play full word "cat", followed by highlight and audio for each segment in new word 'b-a-t', play full word 'bat'

GAME DESIGN: TASK 10

Activity Module 5: User is instructed to select from one of three choices (phonemes only, phoneme & grapheme, graphemes only) or to type a response on the keyboard. Display picture of word, allow rollover with slowed audio on playback.

SCORING CRITERION: TASK 10 =4/2

Phoneme: [similar], [dissimilar] SET 2
Similar = differs by voicing OR place ONLY
Dissimilar = differs by manner, may also differ by voicing and/or place
Exception: for affricates , similar = differs by voicing only, or manner only, but manner of foils is limited to stop, fricative; dissimilar = differs by manner, other than stop, fricative

b: [p,d,g], [z,v,l,r,j,w,m,n]
p: [b,t,k], [s,f,sh,ch,th,l,r,j,w,m,n]
t: [d,p,k], [s,f,sh,ch,th,l,r,j,w,m,n]
d: [t,b,g], [z,v,l,r,j,w,m,n]
k: [g,p,t], [s,f,sh,ch,th,l,r,j,w,m,n]
g: [k,d,b], [z,v,l,r,j,w,m,n]

s: [z,f,sh,th], [p,t,k,l,r,j,w,m,n]
z: [s,v], [b,d,g,l,r,j,w,m,n]
f: [v,s,sh,th], [p,t,k,l,r,j,w,m,n]
v: [f,z], [b,d,g,l,r,j,w,m,n]
sh: [s,f,th], [p,t,k,l,r,j,w,m,n]
th: [s,f,sh], [p,t,k,l,r,j,w,m,n]
h: [f,s,sh,th] [p,t,k,l,r,j,w,m,n]

ch: [dz,sh,t], [l,r,j,w,m,n]
dz: [ch,d], [l,r,j,w,m,n]

l: [r,j,w], [b,d,g,z,v,dz,m,n]
r: [l,j,w], [b,d,g,z,v,dz,m,n]
j: [l,r,w], [b,d,g,z,v,dz,m,n]
w: [l,r,j], [b,d,g,z,v,dz,m,n]

m: [n], [b,d,g,z,v,dz,l,r,j,w]
n: [m], b,d,g,z,v,dz,l,r,j,w]

Task 10

	Word Type	Response Choices	Foils	# Trials	Cuml. Score
48. 75-Identify initial phoneme Real		phonemes	dissimilar	%	
76-Identify initial phoneme	Real	phonemes	similar		%
77-Identify initial phoneme	Nonsense	phonemes	similar		%
78-Identify initial phoneme	Real	phonemes & graphemes	dissimilar		%
79-Identify initial phoneme %	Real	phonemes & graphemes	similar		
80-Identify initial phoneme %	Nonsense	phonemes & graphemes	similar		
81-Identify initial phoneme	Real	graphemes	dissimilar	%	
82-Identify initial phoneme	Real	graphemes	similar		%
83-Identify initial phoneme	Nonsense	graphemes	similar		%
84-Identify initial phoneme	Real	keyboard		n/a	%
85-Identify initial phoneme	Nonsense	keyboard		n/a	%
86-Manipulate initial phoneme	**real**	keyboard		n/a	%
87-Manipulate initial phoneme	**nonsense**	**keyboard**		**n/a**	%

TASK 11: IDENTIFYING ENDING CONSONANT SOUNDS (13)

<u>Learning Objective</u>: The student will identify the final consonant phoneme of a real or nonsense frequency CVC word. The student will select a response from a set of three phonetically similar or phonetically dissimilar response choices or by typing a letter on the keyboard. The student will manipulate phonemes and letters to spell new CVC words.

AUDIO SCRIPT: TASK 11
INTRO>>"The Letter Express is ready to roll!"
IN11A>>"Which puff of smoke -- has the sound you hear -- at the end of....."
IN11B>>"Click on the last letter in....."
IN11BB>>"Click on the last letter in...."
IN11C>>"Use the keyboard to type -- the last letter in..."
IN11D"Use the keyboard to change ... (IN11E)to ....."
　　　　DEMO>> "Watch, I'll show you....."

PROMPT>>"Now it's your turn
** Upon incorrect response: Display (and flash?) correct letter and play audio of target letter 't' followed by all segments 'c-a-t' followed by full word "cat". Highlight each letter as its sound plays.
** Upon incorrect response (manipulate, level 98): Highlight and play audio for each segment of original word 'c-ae-t' , play full word "cat", followed by highlight and audio for each segment in new word 'c-ae-p', play full word 'cap'

GAME DESIGN: TASK 11
<u>Activity Module 5:</u> User is instructed to select from one of three choices (phonemes only, phoneme & grapheme, graphemes only) or to type a response on the keyboard. Display picture of word, allow rollover with slowed audio on playback.

SCORING CRITERION: TASK 11 =4/2

Phoneme: [similar], [dissimilar] SET 2
(Same as Task 10 above)

Task 11	Word Type	Response Choices	Foils	# Trials	Cuml. Score
49. 87-Identify final phoneme	Real	phonemes	dissimilar	%	
88-Identify final phoneme	Real	phonemes	similar	%	
89-Identify final phoneme	Nonsense	phonemes	similar	%	
90-Identify final phoneme	Real	phonemes & graphemes	dissimilar	%	
91-Identify final phoneme	Real	phonemes & graphemes	similar		%
92-Identify final phoneme	Nonsense	phonemes & graphemes	similar		%
93-Identify final phoneme	Real	graphemes	dissimilar	%	
94-Identify final phoneme	Real	graphemes	similar	%	
95-Identify final phoneme	Nonsense	graphemes	similar	%	

96-Identify final phoneme Real	keyboard	n/a	%
97-Identify final phoneme Nonsense	keyboard	n/a	%
98-Manipulate final phoneme **real**	keyboard	n/a	%
99-Manipulate final phoneme nonsense	**keyboard**	**n/a**	**%**

TASK 12: IDENTIFYING VOWELS IN CVCe WORDS (10)

<u>Learning Objective</u>: The student will identify the vowel phoneme of a real or nonsense frequency CVCe word. The student will select a response from a set of three response choices or by typing a letter on the keyboard. The student will manipulate vowel phonemes and letters to spell new CVCe words.

AUDIO SCRIPT: TASK 12

INTRO>>"The Letter Express is ready to roll!"
IN12A>>"Which puff of smoke -- has the long vowel sound you hear -- in the middle of....."
IN12B>>"Click on the vowel in the word......"
IN12C>>"Use the keyboard -- to type the long vowel sound you hear -- in the word..."
IN12D>>"Use the keyboard to change ... (IN12E)to ....."
DEMO>>"Watch, I'll show you....."
PROMPT>>"Now it's your turn.
** Upon incorrect response: Display (and flash?) correct letter and play audio of target letter 'a' followed by all segments 'c-a-ne' followed by full word "cane". Highlight each letter as its sound plays.
** Upon incorrect response (manipulate, level 107): Highlight and play audio for each segment of original word 'c-a-ne' , play full word "cane", followed by highlight and audio for each segment in new word 'c-o-ne', play full word 'cone'

GAME DESIGN: TASK 12

<u>Activity Module 5:</u> User is instructed to select from one of three choices (phonemes only, phoneme & grapheme, graphemes only) or to type a response on the keyboard. Display picture of word, allow rollover with slowed audio on playback.

SCORING CRITERION: TASK 12 =4/2

<u>Task(12)</u>	<u>Word Type</u>	<u>Response Choices</u>	<u># Trials</u>	<u>Cuml. Score</u>
50. 99-Identify vowel in CVCe word	Real	phonemes	%	
100-Identify vowel in CVCe word	Nonsense	phonemes	%	
101-Identify vowel in CVCe word	Real	phonemes & graphemes	%	
102-Identify vowel in CVCe word	Nonsense	phonemes & graphemes	%	
103-Identify vowel in CVCe word	Real	graphemes	%	
104-Identify vowel in CVCe word	Nonsense	graphemes	%	

105-Identify vowel in CVCe word	Real	keyboard	%
106-Identify vowel in CVCe word	Nonsense	keyboard	%
107-Manipulate vowel in CVCe word	**real**	**keyboar d**	%
108-Manipulatevowel in CVCe word	**nonsense**	**keyboard**	**%**

TASK 13: IDENTIFYING VOWELS IN CVC WORDS (10)

<u>Learning Objective</u>: The student will identify the vowel phoneme of a real or nonsense frequency CVC word. The student will select a response from a set of three response choices or by typing a letter on the keyboard. The student will manipulate vowel phonemes and letters to spell new CVC words.

AUDIO SCRIPT: TASK 13

INTRO>>"The Letter Express is ready to roll!"
IN13A>>"Which puff of smoke -- has the short vowel sound you hear -- in the middle of....."
IN13B>>"Click on the vowel in the word......"
IN13C>>"Use the keyboard -- to type the short vowel sound you hear -- in the word..."
IN13D>>"Use the keyboard to change ... (IN13E)to ....."
DEMO>>"Watch, I'll show you....."
PROMPT>>"Now it's your turn.
** Upon incorrect response (identify): Display (and flash?) correct letter and play audio of target letter 'ae' followed by all segments 'c-ae-t' followed by full word "cat". Highlight each letter as its sound plays.
** Upon incorrect response (manipulate, level 116): Highlight and play audio for each segment of original word 'c-ae-t' , play full word "cat", followed by highlight and audio for each segment in new word 'c-o-t', play full word 'cot'

GAME DESIGN: TASK 13

<u>Activity Module 5:</u> User is instructed to select from one of three choices (phonemes only, phoneme & grapheme, graphemes only) or to type a response on the keyboard. Display picture of word, allow rollover with slowed audio on playback.

SCORING CRITERION: TASK 13 =4/2

<u>Task(13)</u>	<u>Word Type</u>	<u>Response Choices</u>	<u># Trials</u>	<u>Cuml. Score</u>
51. 108-Identify vowel in CVC word	Real	phonemes	%	
109-Identify vowel in CVC word	Nonsense	phonemes	%	
110-Identify vowel in CVC word	Real	phonemes & graphemes		%
111-Identify vowel in CVC word	Nonsense	phonemes & graphemes		%
112-Identify vowel in CVC word	Real	graphemes	%	
113-Identify vowel in CVC word	Nonsense	graphemes	%	
114-Identify vowel in CVC word	Real	keyboard	%	

115-Identify vowel in CVC word	Nonsense	keyboard	%	
116-Manipulate vowel in CVC word	real	keyboard		%
117-Manipulate vowel in CVC word	nonsense	keyboard	%	

Word Lists for Tasks 10-12 (Former Task 12 has been deleted. Former Task 13 is now Task 12)
9/12/99 Revisions in bold.
Revised 9/22/99 Additions in bold.
Task 10: Some words removed from list. No new words added.
Task 11: Some words removed from list. New words added for sh, ch, th.
52. Task 12: This task has been deleted from game

Formerly Task 13, now Task 12: Some words deleted. Words re-arranged for added levels of similar and dissimilar sounds. Some new nonsense words added.

TASK 10: List of Real Words (all taken from Slurp & Burp EXCEPT FOR new words marked with >>)
Words in bold taken from Karloon's R&S 1, 9/12/99
/b/
bug,b,^,g
bun,b,^,n
bat,b,ae,t
bus,b,^,s
bath,b,ae,th
big,b,cap(I),g
beg,b,cap(e),g
bed,b,cap(e),d
bit,b,cap(I),t

/k/
cat,k,ae,t
can,k,ae,n
cash,k,ae,sh
cap,k,ae,p
cop,k,a,p

/d/
dot,d,a,t
dip,d,cap(I),p
dish,d,cap(I),sh
did,d,cap(I),d
dig,d,cap(I),g
dash,d,ae,sh
dog,d,),g

/f/
fin,f,cap(I),n
fan,f,ae,n
face,f,e,s
fish,f,cap(I),sh
fat,f,ae,t
fun,f,^,n

/g/
gun,g,^,n
gum,g,^,m
gate,g,e,t_e
gas,g,ae,s
get,g,cap(e),t
gag,g,ae,g

/h/
him,h,cap(I),m
hat,hae,t
hot,h,a,t
hug,h,^,g
hop,h,a,p
hen,h,cap(e),n
had,h,ae,d
ham,h,ae,m
hog,h,),g

/dz/
jet,dz,cap(e),t
jab,dz,ae,b
jot,dz,a,t
job,dz,a,b
jug,dz,^,g
jog,dz,),g
jam,dz,ae,m
jut,dz,^,t

/k/
kid,k,cap(I),d
kit,k,cap(I),t

kin,k,cap(I),n

/l/
lip,l1,cap(I),p
leg,l1,cap(e),g
lap,l1,ae,p
lad,l1,ae,d
lap,l1,ae,p
log,l1,),g
lid,l1,cap(I),d

/m/
mop,m,a,p
math,m,ae,th
map,m,ae,p
mug,m,^,g
mad,m,ae,d
mob,m,a,b
mug,m,^,g
men,m,cap(e),n
mat,m,ae,t

/n/
nod,n,a,d
net,n,cap(e),t
nut,n,^,t
nab,n,ae,b
nod,n,a,d
nun,n,^,n
not,n,a,t
nip,n,cap(I),p

/p/
pot,p,a,t
pig,p,cap(I),g
pen,p,cap(e),n
peg,p,cap(e),g
put,p,cap(u),t
pub,p,^,b
path,p,ae,th
pit,p,cap(I),t
pop,p,a,p

/r/
ram,r,ae,m
red,r1,cap(e),d
rug,r1,^,g
rat,r1,ae,t
rag,r1,ae,g
rib,r1,cap(I),b

rod,r1,a,d
rob,r1,a,b

/s/
sun,s,^,n
sip,s,cap(I),p
sub,s,^,b
sat,s,ae,t
sag,s,ae,g
sob,s,a,b
sod,s,a,d
sit,s,cap(I),t

/t/
ten,t,cap(e),n
top,t,a,p
tub,t,^,b
top,t,a,p
tin,t,cap(I),n
tan,t,ae,n

/v/
van,v,ae,n
vet,v,cap(e)t
vat,v,ae,t
vim,v,cap(I),m
vin,v,cap(I),n

/w/
web,w,cap(e),b
wig,w,cap(I),g
wet,w,cap(e),t
wag,w,ae,g
win,w,cap(I),n
wish,w,cap(I),sh
wed,w,cap(e),d

/j/
yes,j,cap(e),s
yen,j,cap(e),n
yap,j,ae,p
yin,j,cap(I),n
yet,j,cap(e),t

/z/
zag,z,ae,g
zig,z,cap(I),g
zip,z,cap(I),p
zit,z,cap(I),t

zen,z,cap(e),n
zap,z,ae,p

/sh/
shot,sh,a,t
ship,sh,cap(I),p
shut,sh,^,t
shin,sh,cap(I),n
shag,sh,ae,g

/ch/
chip,ch,cap(I),p
chop,ch,a,p
chat,ch,ae,t
chum,ch,^,m
chap,ch,ae,p
chin,ch,cap(I),n
chug,ch,^,g

/th/
thin,th,cap(I),n
thud,th,^,d
thug,th,^,g

Added 9/12/99
Real Words for last level of task 10-- changing first letter or letters in word:
bat, cat, fat, hat, mat, rat, sat, vat, chat
bug, hug, jug, mug, rug, chug, thug
bun, fun, gun, nun, sun
bath, math, path
nod, rod, sod
hug, chug, mug, rug, thug
bed, wed, red
bit, kit, pit, sit, zit
beg, peg, leg
can, tan, fan, van
cash, dash
cap, lap, map, yap, zap, chap
cop, hop, mop, pop, top, chop
dot, hot, jot, not, pot, shot
dip, lip, nip, sip, zip, ship, chip
dish, fish, wish
did, kid, lid
fin, kin, win, shin, chin, thin
pub, sub, tub
gum, chum
him, vim
job, mob, rob, sob

get, jet, net, vet, wet, yet
gag, rag, sag, wag, zag, shag
hen, men, pen, ten, yen, zen
had, lad, mad
jam, ham, ram
jut, nut, shut
hog, log, dog
jab, nab

TASK 10: List of Nonsense Words (all taken from Slurp & Burp)
New words added in bold 9/12/99
/b/
bab,b,ae,b
bup,b,^,p

/d/
dup,d,^,p
dob,d,a,b

/f/
fet,f,cap(e)t
fim,f,cap(I),m
fud,f,^,d

/g/
gud,g,^,d

/h/
hab,h,ae,b
hup,h,^,p

/dz/
jup,dz,^,p

/k/
kep,k,cap(e),p
ket,k,cap(e),t

/l/
lep,l,cap(e),p

/m/
mag,m,ae,g
mit,m,cap(I),t

/n/
nim,n,cap(I),m

nud,n,^,d

/p/
pim,p,cap(I),m

/r/
rab,r1,ae,b
rup,r1,^,p

/s/
sab,s,ae,b
sup,s,^,p

/t/
tup,t,^,p

/v/
vud,v,^,d
vit,v,cap(I),t

/w/
wud,w,^,d

/j/
yud,j,^,d
yit,j,cap(I),t

/z/
zup,z,^,p
zim,z,cap(I),m
zud,z,^,d

/sh/
shup,sh,^,p
shim,sh,cap(I),m
shud,sh,^,d

/ch/
chup,ch,^,p
chet,ch,cap(e),t
chod,ch,a,d
chag,ch,ae,g

chen,ch,cap(e),n

/th/
thag,th,ae,g
thup,th,^,p
thod,th,a,d

Added 9/12/99
Nonsense Words for last level of task -- changing first letter or letters in word:
bab, hab, sab, rab
bup, dup, hup, jup, rup, zup, shup, chup, thup
fet, ket
fim, nim, pim, zim, shim
fud, gud, nud, vud, wud, jud, zud, shud
ket, fet, chet
mag, thag, chag
nit, vit, yit

TASK 11: List of VC Real Words (all taken from Slurp & Burp)
Words in bold added 9/12/99
/b/
cub,k,^,b
tub,t,^,b
sub,s,^,b
hob,h,a,b
bob,b,a,b
rob,r,a,b
mob,m,a,b
sob,s,a,b
cob,c,a,b
lob,l,a,b
job,j,a,b
rub,r,^,b
tub,t,^,b
cub,c,^,b
sub,s,^,b
hub,h,^,b
dub,d,^,b
nub,n,^,b
pub,p,^,b
cab,c,ae,b
lab,l,ae,b
tab,t,ae,b
dab,d,ae,b
jab,j,ae,b
gab,g,ae,b
fab,f,ae,b
nab,n,ae,b
[ ]
[ ]
/d/

dad,d,ae,d
sad,s,ae,d
mad,m,ae,d
had,h,ae,d
sad,s,ae,d
mad,m,ae,d
lad,l,ae,d
pad,p,ae,d
fad,f,ae,d
dad,d,ae,d

god,g,a,d
rod,r1,a,d
cod,k,a,d

pod,p,a,d
sod,s,a,d
nod,n,a,d
red,r1,cap(e),d
bed,b,cap(e),d
led,l1,cap(e),d
fed,f,cap(e),d
wed,w,cap(e),d
shed,sh,cap(e),d
did,d,cap(I),d
rid,r,cap(I),d
hid,h,cap(I),d
kid,k,cap(I),d
lid,l1,cap(I),d
bid,b,cap(I),d
mid,d,cap(I),d

/g/

bag,b,ae,g
rag,r1,ae,g
tag,t,ae,g
jug,dz,^,g
bug,b,^,g
hug,h,^,g
mug,m,^,g
rug,r1,^,g
tug,t,^,g
chug,ch,^,g
thug,th,^,g
bag,b,ae,g
rag,r1,ae,g
tag,t,ae,g
wag,w,ae,g
sag,s,ae,g
nag,n,ae,g
zag,z,ae,g
shag,sh,ae,g
lag,l1,ae,g
hag,h,ae,g
gag,g,ae,g
pig,p,cap(I),g
big,b,cap(I),g
dig,d,cap(I),g
fig,f,cap(I),g
wig,w,cap(I),g
rig,r,cap(I),g
gig,g,cap(I),g
jig,j,cap(I),g

dog, log, fog, hog, bog, jog, cog
dug, rug, jug, chug, thug, tug, hug, mug, lug, pug
leg, peg, beg, keg

/m/
gum, sum, chum, hum, run, bum, mum
him, vim, dim, rim
dam, ham, jam, ram, yam, cam, sham

/n/
bun, gun, sun, run, nun, fun, pun
pen, hen, men, ten, den, then
can, man, ran, pan, fan, tan, than, van, ban
win, tin, pin, gin, fin, bin, sin, din, kin, thin, shin, chin

/p/
cap,k,ae,p
map,m,ae,p
lap,ll,ae,p
cop, hop, mop, pop, top, bop, chop, shop
lip, hip, sip, rip, dip, zip, nip, tip ship, chip
map ,cap, tap, lap, gap, sap, nap, yap, chap, rap

/t/
mat,m,ae,t
hat,h,ae,t
cat,k,ae,t
bat, cat, fat, hat, rat, pat, sat, mat, that, chat, vat, tat
pot, cot, dot, hot, lot, rot, shot, not, got, jot, tot
get, set, let, yet, met, wet, jet, net, pet, bet
bit, hit, sit, fit, lit, kit, pit, wit
but, cut, hut, nut, gut, rut, tut, jut, shut

/sh/ (all new words taken from Juggling Letters)
fish, dish, wish, mish
hush, mush, rush, lush, gush
cash, dash, sash, hash, mash, lash, rash, gash, bash

/ch/
such, much, rich

/th/
bath, math, hath, path, lath, with

53. Task 11

Added 9/12/99
Real words for last level of task -- changing last letter in word:
hob, hop, hot
rob, rod, rot
cob, cot, cob, cop
pod, pot, pop
sod, sod
lob, lot
job, jot
top, tot
god, got
shot, shop

had, ham, hat, hath
sad, sag, sap, sat, sash
lad, lab, lag, lap, lash, lath
pad, pan, pat, path
fad, fan, fat
bad, bag, bat, bash, bath
cab, can, cap, cat, cam, cash
mad, man, map, mat, mash, math
dad, dab, dam, dash
tab, tag, tan, tap, tat
gab, gap
nab, nap
rag, ran, rat, ram, rap, rash
van, vat
chap, chat

bed, beg, bet
led, leg, let
wed, wet
peg, pen, pet
men, met

did, dig, din, dip, dim, dish
rid, rip, rig, rim
hid, him, hip, hit
kid, kin
lid, lip, lit
bid, big, bit, bin
pin, pit, pig
fig, fit, fin, fish
wig, win, wit, wish, with
kid, kit, kin
tin, tip
sin, sip, sit
ship, shin
chip, chin

rub, rug, rum, run, rut, rush
tub, tug, tut
cub, cut
sub, sum, sun, such
hub, hug, hum, hut
dub, dug
nub, nut, nun
pub, pug, pun
jug, jut
chug, chum
mug, mum, mush, much
gum, gun, gut, gush
bum, but, bun

TASK 11: List of CVC Nonsense Words (all taken from Slurp & Burp)
9/12/99 words in bold added
/b/

vub,v,^,b
zub,z,^,b
mab,m,ae,b
zab,z,ae,b
wab,w,ae,b
gub,g,^,b
leb,ll,cap(e),b

/d/

vad,v,ae,d
nad,n,ae,d
wad,w,ae,d
ped,p,cap(e),d
sed,s,cap(e),d
yud,j,^,d
vid,v,cap(i),d
fod,f,a,d

/g/
lig,ll,cap(i),g
sig,s,cap(i),g
pag,p,ae,g
cag,k,ae,g
fug,f,^,g
wug,w,^,g
sug,s,^,g

zug,z,^,g
mog,m,a,g

/m/
jum,dz,^,m
lum,ll,^,m
vam,v,ae,m
nam,n,ae,m
pem,p,cap(e),m
jom,dz,a,m

/n/
lun,ll,^,n
lan,ll,ae,n
han,h,ae,n
fen,f,cap(e),n
len,ll,cap(e),n
lin,ll,cap(i),n
min,m,cap(i),n
hun,h,^,n
sen,s,cap(e),n
zon,z,a,n

/p/
wap,w,ae,p
bap,b,ae,p
fap,f,ae,p
vip,v,cap(i),p
mip,m,cap(i),p
fop,f,a,p
jop,dz,a,p
yup,j,^,p
gup,g,^,p
jup,dz,^,p
vup,v,^,p
hup,h,^,p
dup,d,^,p
tep,t,cap(e),p

/t/
zat,z,ae,t
wat,w,ae,t
yat,j,ae,t
set,s,cap(e),t

tet,t,cap(e),t
zot,z,a,t
mot,m,a,t
sut,s,^,t
wut,w,^,t
fet,f,cap(e),t

new words added 9/22/99
/sh/
kish, lish, sish, nish
dush, nush, wush, wush, dush
tash, vash, zash, fash,

/ch/
mich, vuch, nuch, huch, luch

/th/
dath, nath, fath, wath, cath, nith

Task 11 Nonsense Word list for changing last letter in word:
vub, vup, vuch
wug, wut, wush
jum, jup
lum, lun, luch
zug, zub
dup, dush
yup, yud
gup, gub
hup, hun, huch
sut, sug

zat, zab, zash
wat, wap, wad, wath
vad, vam, vash
nad, nam, nath

ped, pem
sed, sen, set
fen, fet
len, leb

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tet, tep

lig, lin, lish
min, mip, mich
vip, vid

fop, fod
jop, jom
zot, zon
mot, mog

DELETE THIS TASK FROM GAME:
TASK 12: List of CVCe Real Words (all taken from Slurp & Burp)

ride,r1,ai,d_e
side,s,ai,d_e
hide,h,ai,d_e
line,l1,ai,n_e
pine,p,ai,n_e
vine,v,ai,n_e
rice,r1,ai,s_e
dice,d,ai,s_e
mice,m,ai,s_e
tile,t,ai,l2_e
pile,p,ai,l2_e
file,f,ai,l2_e
time,t,ai,m_e
dime,d,ai,m_e
lime,l1,ai,m_e
tire,t,ai,r2_e
wire,w,ai,r2_e
fire,f,ai,r2_e

wave,w e,v_e
cave,k,e,v_e
shave,sh,e,v_e
cake,k,e,k_e
rake,r1,e,k_e
lake,l1,e,k_e
hose,h,o,z_e
rose,r1,o,z_e

nose,n,o,z_e
hole,h,o,l2_e
pole,p,o,l2_e
mole,m,o,l2_e

TASK 12: List of CVCe Nonsense Words (all taken from Slurp & Burp)
lide,l1,ai,d_e
nide,n,ai,d_e
zide,z,ai,d_e
sine,s,ai,n_e
bine,b,ai,n_e
sive,s,ai,v_e
pive,p,ai,v_e
zive,z,ai,v_e
tice,t,ai,s_e
fice,f,ai,s_e
bice,b,ai,s_e
kile,k,ai,l2_e
sile,s,ai,l2_e
fime,f,ai,m_e
zime,z,ai,m_e
jime,dz,ai,m_e
hime,h,ai,m_e
bire,b,ai,r2_e
jire,dz,ai,r2_e
pire,p,ai,r2_e
rike,r1,ai,k_e
vike,v,ai,k_e
dite,d,ai,t_e
mite,m,ai,t_e
rite,r1,ai,t_e
vite,v,ai,t_e
fave,f,e,v_e
lave,l1,e,v_e
dake,d,e,k_e
faze,f,e,z_e
waze,w,e,z_e
jaze,dz,e,z_e
laze,l,e,z_e
baze,b,e,z_e
dape,d,e,p_e
lape,l1,e,p_e
zape,z,e,p_e
vate,v,e,t_e

bate,b,e,t_e
wose,w,o,z_e
vose;v,o,z_e
bose,b,o,z_e
kose,k,o,z_e
fole,f,o,l2_e
dole,d,o,l2_e
tope,t,o,p_e
yope,j,o,p_e
zope,z,o,p_e
lope,l1,o,p_e
dobe,d,o,b_e
tobe,t,o,b_e
fobe,f,o,b_e
hobe,h,o,b_e
pobe,p,o,b_e

FORMERLY TASK 13 (NOW TASK 12): List of CVC Real Words
Short vowel 'a' /ae/
bat, cat, hat, cab, lab, jab, pad, cap, map, tap, rag, hag, dam, ham, pan, fan, tan, tap,
chap, pat, tat, had, sad, mad, lad, fad, bad, dad, jab, had, bag, wag, ram, man, ban, map, cap,
nap, chap, rap, lag, lap, zap, tab, rat,

Short vowel 'e' /cap(e)/
net, red, pet, let, get, jet, led, fed, bed, beg, hem, men, pen, ten, leg, wet

Short vowel 'i' /cap(I)/
bit, hit, rid, hip, tip, chip, ship, pit, lit, hid, lid, did, hid, big, rig, wig, dim, him, rim, tin, bin,
tip, nip, chip, rip, lip, hip, zip, wit, dig

Short vowel 'o' /a/
cot, hot, not, rob, sob, cob, lob, job, hob, rod, pod, cop, hop, mop, top, chop, shop, pot, lot, shot, got, jot, tot,
sod, mod, job, mop, cop, hop, rot,

Short vowel 'u' /^/
but, cut, hut, nut, rub, sub, cub, hub, shut, gut, tut, mud, bud, dud, rug, hug, hum, rum, bun, tub, dug,
rut

cap,k,ae,p
map,m,ae,p
lap,l1,ae,p
dad,d,ae,d
sad,s,ae,d
mad,m,ae,d
mat,m,ae,t
hat,h,ae,t
cat,k,ae,t
can,k,ae,n
fan,f,ae,n
pan,p,ae,n
ham,h,ae,m
jam,dz,ae,m
yam,j,ae,m
bag,b,ae,g
rag,r1,ae,g
tag,t,ae,g

pen,p,cap(e),n
ten,t,cap(e),n
men,m,cap(e),n

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red,r1,cap(e),d
shed,sh,cap(e),d
bed,b,cap(e),d
wet,w,cap(e),t
net,n,cap(e),t
jet,dz,cap(e),t

chin,ch,cap(i),n
pin,p,cap(i),n
fin,f,cap(i),n
wig,w,cap(i),g
pig,p,cap(i),g
dig,d,cap(i),g
lip,l1,cap(i),p
ship,sh,cap(i),p
zip,z,cap(i),p

pot,p,a,t
cot,k,a,t
hot,h,a,t
mop,m,a,p
top,t,a,p
cop,k,a,p

nut,n,^,t
hut,h,^,t
cut,k,^,t
sun,s,^,n
gun,g,^,n
bun,b,^,n
cub,k,^,b
tub,t,^,b
sub,s,^,b
bug,b,^,g
rug,r1,^,g
hug,h,^,g
gum,g,^,m
cup,k,^,p

WORD LIST FOR LAST LEVELS OF TASK: CHANGING VOWELS
bat, bit, but
cut, cat, cot
hut, hot, hit, hat
not, nut, net
rob, rub

sob, sub
cob, cab, cub
lob, lab
job, jab
hob, hub
rod, red, rid
pod, pad
cop, cap
hop, hip
mop, map
top, tap, tip
chop, chap, chip
shop, ship
pot, pit, pat, pet
lot, let, lit
shot, shut
got, get, gut
jot, jet, jut
tot, tat, tut
had, hid
sad, sod
mad, mod, mud
lid, lad, led
fad, fed
bad, bed, bud
dad, did, dud
jab, job
had, hid
bag, big, beg
rag, rug, rig
wag, wig
hag, hug
dam, dim
ham, hum, him, hem
ram, rum, rim
man, men
pan, pen
fan, fin
tan, ten, tin
ban, bin, bun
map, mop
cap, cop
tap, tip, top
nap, nip
chap, chip
rap, rip
leg, lag
lip, lap
hip, hop
zip, zap
wit, wet

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tub, tab
dug, dig
rot, rat, rut

FORMERLY TASK 13, now Task 12: List of CVC Nonsense Words (all taken from Slurp & Burp)
New words added in bold 9/22/99

Short vowel 'a' /ae/
wap, bap, fap, vad, nad, zat, wat, yat, han, vam, nam, pag, cag, mab, zab, wab,

Short vowel 'e' /cap(e)/
fen, len, ped, sed, tet, fet, det, ket, het, ved, deg, nem, sen

Short vowel 'i' /cap(I)/
lin, lig, sig, vip, mip, **nid, vit, fip, kip, wip, tig, sig, tig,**

54. Short vowel 'o' /a/

zot, mot, fop, jop, **fod, zop, fot, fod, jod, rop, wop, wob, tob**

Short vowel 'u' /^/
sut, wut, lun, dun, vub, zub, fug, wug, jum, lum, yup, gup, vup

WORD LIST FOR LAST LEVELS OF TASK: CHANGING VOWELS
wap,w,ae,p
bap,b,ae,p
fap,f,ae,p
vad,v,ae,d
nad,n,ae,d
zat,z,ae,t
wat,w,ae,t
yat,j,ae,t
han,h,ae,n
vam,v,ae,m
nam,n,ae,m
pag,p,ae,g
cag,k,ae,g
mab,m,ae,b
zab,z,ae,b
wab,w,ae,b
fen,f,cap(e),n
fet,f,cap(e),t
det,d,cap(e),t

ket,k,cap(e),t
het,h,cap(e),t
ved,v,cap(e),d
deg,d,cap(e),g
nem,n,cap(e),m
sen,s,cap(e),n
len,ll,cap(e),n
ped,p,cap(e),d
sed,s,cap(e),d
tet,t,cap(e),t
lin,ll,cap(i),n
lig,ll,cap(i),g
sig,s,cap(i),g
nid,n,cap(I),d
vit,v,cap(I),t
fip,f,cap(I),p
kip,k,cap(I),p
wip,w,cap(I),p
tig,t,cap(I),g
sig,s,cap(I),g
tig,t,cap(I),g
vip,v,cap(i),p
mip,m,cap(i),p
zot,z,a,t
mot,m,a,t
fop,f,a,p
jop,dz,a,p
fod,f,a,d
zop,z,a,p
fot,f,a,t
jod,dz,a,d
rop,rl,a,p
wop,w,a,p
wob,w,a,b
tob,t,a,b
sut,s,^,t
wut,w,^,t
lun,ll,^,n
dun,d,^,n
vub,v,^,b
zub,z,^,b
fug,f,^,g
wug,w,^,g
jum,dz,^,m
lum,ll,^,m

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yup,j,^,p
gup,g,^,p
jup,dz,^,p
vup,v,^,p

i.   Karloons

55.   Revised 1/31/99

56.   Revised 7/29/99

Revised 8/18/99 incorporated new game design ideas from team meeting; removed
Activity #4 (JMW)

57.   Revised 8/24/99 added words & instructions (LHD)

58.   Revised 8/30/99 re-ordered sequence of tasks, revised instructions (JMW)

59.   Revised 9/6/99 added word lists; inserted new tasks and reduced number total
number of tasks

60.   from 26 to 18 (JMW)

        Revised 9/17/99 Updated specs following development team meeting: revised
description of Activity Modules; Removed 6 levels from Task 8; Shortened text for
column heading in Tasks 8, 13, 14, 15, 16, 17, 18; Changed column heading from "wpm"
to "response interval" and changed duration of response intervals in Tasks with
Activity Module1; implemented /c/ for /k/ when /k/ phoneme is spelled with letter
'c'; decision made to hold instructions/demo of task until prototype developed and
beta testing indicates need; added notes and script for incorrect responses in all
modules; changed criteria of module1 from 4/2 to 80%; changed criteria of module 3
from 4/2 to 3/2; addressed issue of handling no responses in modules 5 & 6 (JMW)

        Revised 10-21-99 More detailed description to Sorting and Darts & Balloons
Activities; Strike-out some words from word list in Task 1; Separated Task 1 into two
identical tasks, but each drawing from different word lists. Separated (former) Task 2
into two identical tasks, but with each drawing from different word lists. Strike-out
some words from word lists (check all word lists for strike-outs); Separated (former)
Task 3 into two identical tasks, but with each drawing from different word lists.
Modified instructions in Task 7 & Task 8; Re-organized and added words to (former)
Task 9; Added semantic instructions to (former) Task 9; Deleted and added some new
words in (former) Task 10; Modified instructions in (former) Task 12; Removed
(former) Task 13

9/21 added instruction labels (Tc)
9/24 J-C added Jan's revisions
9/26 J-C reorganized & renamed module numbers
10/6 J-C edited instructions

Player: (Player Name)
Game:
Primary Skills: Auditory Attention, Vigilance, Discrimination, Short Term Memory;
Phonological Segmentation, Phonological Identification, Rhyming, Phonological
Sequencing; Morphological Segmentation and Identification; Letter Recognition; Sound-
Symbol Correspondence; Decoding; Sight Recognition; Visual Orthographic Memory;
Reading Fluency; Semantic Word Classification.

Activity Module1: Sorting Task. Karloon pulls word card out of his pants. Blank card
for auditory only presentations. Card with printed word for auditory + visual and
visual only presentations. Holds up card with word written on it. User clicks on
Karloon's right shoe if word belongs in group on right of screen, clicks on left shoe if
word belongs in group on left of screen. **FLASH SHOES WHEN REFERRING TO
EACH IN INSTRUCTIONS.** Scoring criteria = 80% correct within round of play to
advance. A score of less than 50% results in decrease of level of play. If correct, place
printed word card in correct group, play word, and receive happy clown face. If
incorrect, (user clicks on wrong shoe or does not respond within response interval)
place printed word card in correct group, play word, **FLASH FRAME AROUND
CHART WHEN PLACING WORD ON CORRECT CHART AFTER INCORRECT
RESPONSE** ~~and receive sad clown face~~. At end of round, read all words on the left
chart to reinforce learning of target pattern. **HIGHLIGHT WORD/CARD AS EACH
WORD IS READ** Distribution of words: minimum of 5 target words (5 non-target
words) and maximum of 8 target words (2 non-target words) within round of play.
Randomly select a target sound for each round of play, sample without replacement.

Activity Module 2: Darts & Balloons. User instructed to click when they hear/see target
word. **FLASH DART WHEN REFERRING TO IT IN INSTRUCTIONS.** Then scan 3x3
matrix of balloons. User clicks to fire dart. If correct, dart hits target and balloon bursts.
If incorrect, dart misses target. Show correct response / ~~flash target word on card~~
Karloon is holding. **DO NOT FLASH WORD, SIMPLY DISPLAY.** If no response
within response interval, drop dart and show correct response / flash target word on
card. 4/2 scoring.

Activity Module 3: Matrix Maze. Present 4x4 matrix of boxes. Give directions. User
clicks on top left box to begin maze. Present word for first box. Highlight 2 adjacent
boxes / gray out other boxes. User rolls-over highlighted boxes to hear word. Clicks to
select response. If correct, continue on. If incorrect click, end this maze and start
another. Each maze = 1 trial in round of ten trials. If user gets all the way through maze,
they get a ball for Karloon to juggle at end of round. If incorrect, (user clicks on wrong
square or does not complete maze in time allowed) no ball. Pile of ten balls next to

Karloon at beginning of round, If incorrect response or user doesn't complete maze, ball · from top of pile rolls-off screen. If they do complete maze, ball placed in Karloon's hand to be juggled at end of round. Target words are hard coded into maze. Foil words vary. Criteria: 3/2. If auditory presentation level, play audio on roll-over. At all levels, play audio on selection of response.

TASK 1: SORTING WORDS BY INITIAL CONSONANT SOUND: SINGLE CONSONANTS (9)

<u>Learning Objective</u>: The student will sort words based on initial consonant sound and single consonant letter when a series of words is presented at a rate of 30 wpm, 45 wpm and 60 wpm. Words will be presented in auditory only, auditory + visual, or visual only format. A visual cue will or will not be provided to facilitate performance with visual presentations.

Criteria: 80% correct within round of play to advance; drop level of play if less than 50%
Activity Module1
HELLO>>"Hi boys & girls.
START>> Let's find all the words that start with ...
PUT>>... and put them over here on the left.
OTHER>>All the other words will go over here on the right.
LEFT>>Click on my left shoe to put the words on the left side.....
RIGHT>>Click on my right shoe to put the words on the right side.
GO>> Get ready, set.....Go!"
<u>On correct response:</u> Place printed word on chart. Say word. Receive Happy clown face.
<u>On incorrect response:</u> Place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~
<u>On failure to respond within time interval:</u> **GOT**"I got this one" **PLAY**"You have to be quick to play this game! Place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~
<u>On failure to respond more than 2x in a row:</u> **SLEEP**"Hey, are you sleeping'? Click on me if you want to keep playing." If no response from user, discard all 3 NRs and end round of play. If user responds to continue play, place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~ **AWAKE**"Stay awake now." Continue round of play.
<u>At end of round:</u> **BEGIN**"Let's read all the words that begin with /p/." Highlight and play all words on left chart.

<u>Task (1)</u>: #<u>Trials</u> <u>Score</u>	<u>Presentation</u>	<u>Visual Cue</u>	<u>Response Interval</u>
1-Sort Beg. Consonants	auditory	n/a	2 seconds

2-Sort Beg. Consonants	auditory	n/a	1 second
3-Sort Beg. Consonants	auditory	n/a	0.5 seconds
4-Sort Beg. Consonants	auditory + visual	yes	2 seconds
5-Sort Beg. Consonants	auditory + visual	yes	1 second
6-Sort Beg. Consonants	auditory + visual	yes	0.5 seconds
7-Sort Beg. Consonants	visual	no	2 seconds
8-Sort Beg. Consonants	visual	no	1 second
9-Sort Beg. Consonants	visual	no	0.5 seconds

Word List:
/b/ back, bug, bike, bun, bat, bus, bath, bell, bass, big, bed, bit, ~~bake, bite~~
/c/ cat, ~~cube, cake, cave, cone, cape~~, can, cash, call, cap, cop, cat, can, came, cob
/d/ dice, dot, dime, dock, dip, ~~date~~, dish, dab, ~~dine, dame, dub~~, did, dig, ~~ding, dash~~
/f/ fin, fan, face, ~~fine, fade,~~ fox, fall, fish, fat, fig, fad, ~~fade,~~ fell, ~~fake,~~ fun
/g/ ~~gal,~~ gun, gum, ~~gate,~~ gas, gap, ~~gash, gape,~~ gill, gull, gush, get, gag, game, ~~gale, gong~~
/h/ hall, him, home, hide, hat, ~~hive,~~ hot, hug, hop, hen, hill, hem, had, hog, ~~hope~~
/dz/ joke, jack, jet, jig, jab, ~~jade,~~ jot, job, jug, ~~jade,~~ June, jog, jam, ~~Jane,~~ jut
/k/ kid, kite, kick, kiss, kit, kin, kill, Kate, Ken
/l/ lake, ~~lime,~~ lip, lock, line, lap, ~~lobe,~~ late, ~~lame,~~ lad, ~~lap,~~ lob, log, ~~lane,~~ lid
/m/ mop, map, mug, ~~maze, mate, mine,~~ make, ~~mote,~~ mad, mid, mob, mug, men, mat, ~~mole~~
/n/ net, note, nut, nab, ~~nope,~~ null, nod, nun, not, nip, ~~nod,~~ Ned, nose, name, ~~Nile~~
/p/ pot, pig, pen, pipe, ~~pot, pane,~~ put, pile, pill, ~~pike, pane,~~ pun, pub, pit, pop
/r/ rock, rake, ~~robe,~~ rose, red, rope, rug, ~~rate,~~ rat, rag, rib, rod, rob, ring, rut
/s/ sun, sock, sat, sip, same, sub, side, ~~sane, same,~~ sat, sag, sob, sit, Sam, ~~site~~
/t/ ten, top, take, time, tack, tub, top, tape, ~~tame, tine, tone,~~ tap, tin, tad, tan
/v/ van, ~~vine,~~ vet, ~~vote, vane, vile,~~ vat, vim, vin, vice
/w/ web, well, wig, wet, wag, win, wish, wed, ~~wake, wire, wade,~~ wall, will
/j/ yes, yen, yap, yoke, ~~yoke,~~ yang, yep, yin, yet, yell, yin
/z/ zag, zig, zone, zip, zit, zen, zap
Foils: from any line list other than line list containing target word.

TASK 2: SORTING WORDS BY INITIAL CONSONANT SOUND: CONSONANT DIGRAPHS (9)
Learning Objective: The student will sort words based on initial consonant sound and consonant digraphs when a series of words is presented at a rate of 30 wpm, 45 wpm

and 60 wpm. Words will be presented in auditory only, auditory + visual, or visual only format. A visual cue will or will not be provided to facilitate performance with visual presentations.

Criteria: 80% correct within round of play to advance; drop level of play if less than 50%
Activity Module1
HELLO>>"Hi boys & girls.
START>> Let's find all the words that start with …
PUT>>… and put them over here on the left.
OTHER>>All the other words will go over here on the right.
LEFT>>Click on my left shoe to put the words on the left side…..
RIGHT>>Click on my right shoe to put the words on the right side.
GO>> Get ready, set…..Go!"
<u>On correct response:</u> Place printed word on chart. Say word. Receive Happy clown face.
<u>On incorrect response:</u> Place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~
<u>On failure to respond within time interval:</u> **GOT**"I got this one" **PLAY**"You have to be quick to play this game! Place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~
<u>On failure to respond more than 2x in a row:</u> **SLEEP**"Hey, are you sleeping'? Click on me if you want to keep playing." If no response from user, discard all 3 NRs and end round of play. If user responds to continue play, place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~ **AWAKE**"Stay awake now." Continue round of play.
<u>At end of round:</u> **BEGIN**"Let's read all the words that begin with /p/." Highlight and play all words on left chart.

Task (2) :	Presentation	Visual Cue	Response Interval
#Trials Score			
1-Sort Beg. Consonants	auditory	n/a	2 seconds
2-Sort Beg. Consonants	auditory	n/a	1 second
3-Sort Beg. Consonants	auditory	n/a	0.5 seconds
4-Sort Beg. Consonants	auditory + visual	yes	2 seconds
5-Sort Beg. Consonants	auditory + visual	yes	1 second
6-Sort Beg. Consonants	auditory + visual	yes	0.5 seconds
7-Sort Beg. Consonants	visual	no	2 seconds

8-Sort Beg. Consonants   visual   no   1 second

9-Sort Beg. Consonants   visual   no   0.5 seconds

Word List:
/sh/ shot, ship, shut, shake, shade, shine, shack, shell, shin, shape, shag
/ch/ chip, chop, chat, chum, chap, chin, chore, chick, check, chill, chug
/th/ thin, thud, thick, thug, thumb, thank, thing, think, thong
Foils: from any line list other than line list containing target word.

(FORMER TASK 2)
TASK 3: SORTING WORDS BY WORD ENDING: SHORT VOWEL RIMES ENDING IN SINGLE CONSONANTS (9)
<u>Learning Objective</u>: The student will sort words based on word rime when a series of words is presented at a rate of 30 wpm, 45 wpm and 60 wpm. Words will be presented in auditory only, auditory + visual, or visual only format. A visual cue will or will not be provided to facilitate performance with visual presentations.

Criteria: 80% correct within round of play to advance; drop level of play if less than 50%
Activity Module1

HELLO>>"Hi boys & girls.
START>> Let's find all the words that ~~start~~ end with ...
PUT>>... and put them over here on the left.
OTHER>>All the other words will go over here on the right.
LEFT>>Click on my left shoe to put the words on the left side.....
RIGHT>>Click on my right shoe to put the words on the right side.
GO>> Get ready, set.....Go!"
<u>On correct response:</u> Place printed word on chart. Say word. Receive Happy clown face.
<u>On incorrect response:</u> Place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~
<u>On failure to respond within time interval:</u> **GOT**"I got this one" **PLAY**"You have to be quick to play this game!" Place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~
<u>On failure to respond more than 2x in a row:</u> **SLEEP**"Hey, are you sleeping'? Click on me if you want to keep playing." If no response from user, discard all 3 NRs and end round of play. If user responds to continue play, place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~ **AWAKE** "Stay awake now." Continue round of play.
<u>At end of round:</u> **END** "Let's read all the words that end with /aep/." Highlight and play all words on left chart.

Task (3) :	Presentation	Visual Cue	Response Interval
#Trials Score			
1-Sort short vowel rimes	auditory	n/a	2 seconds
2-Sort short vowel rimes	auditory	n/a	1 second
3-Sort short vowel rimes	auditory	n/a	0.5 seconds
4-Sort short vowel rimes	auditory + visual	yes	2 seconds
5-Sort short vowel rimes	auditory + visual	yes	1 second
6-Sort short vowel rimes	auditory + visual	yes	0.5 seconds
7-Sort short vowel rimes	visual	no	2 seconds
8-Sort short vowel rimes	visual	no	1 second
9-Sort short vowel rimes	visual	no	0.5 seconds

Word List:

/aet/ at, bat, cat, fat, hat, rat, pat, sat, mat, that, chat, vat, tat
/at/ pot, cot, dot, hot, lot, rot, shot, not, got, jot, tot
/^g/ jug, bug, dug, hug, mug, rug, tug, chug, thug
/ap/ ~~op,~~ cop, hop, mop, pop, top, bop, chop, shop
/aeg/ bag, rag, tag, wag, sag, nag, zag, ~~shag,~~ lag, hag, gag
/cap(I)g/ pig, big, dig, fig, wig, rig, gig, jig
/cap(I)p/ lip, hip, sip, rip, dip, zip, nip, tip ship, chip
/aed/ ad, had, sad, mad, lad, pad, fad, bad, dad, Thad
/aep/ map ,cap, tap, lap, gap, sap, nap, yap, chap, rap
/cap(e)t/ get, set, let, yet, met, wet, jet, net, pet, bet
/cap(e)d/ ~~ed,~~ red, bed, led, fed, Ned, Ted, wed, shed
/cap(I)d/ ~~id,~~ did, rid, hid, kid, lid, bid, mid
/cap(I)t/ it, bit, hit, sit, fit, lit, kit, pit, wit
/ab/ hob, bob, rob, mob, sob, cob, lob, job, ~~fob,~~ hob
/ad/ god, rod, cod, pod, sod, nod
/ag/ dog, log, fog, hog, bog, ~~jog, cog~~ CHECK FOR DIALECT ISSUE
/^b/ rub, tub, cub, sub, hub, ~~dub, nub, pub~~
/^t/ but, cut, hut, nut, gut, rut, ~~tut, jut,~~ shut
/aeb/ cab, lab, tab, dab, jab, gab, ~~fab,~~ nab
/^g/ dug, rug, jug, chug, thug, tug, hug, mug, ~~lug, pug~~
/cap(e)g/ leg, peg, beg, keg, Meg, reg

/^n/ un, bun, gun, sun, run, nun, fun, pun,
/^m/ gum, sum, chum, hum, run, bum, mum
/cap(e)n/ en, pen, hen, men, ten, Ben, den, yen, then, Ken
/aem/ am, Sam, dam, ham, jam, ram, yam, cam, sham
/aen/ an, can, man, ran, Dan, pan, Jan, fan, tan, than, van, ban
/cap(I)m/ im, him, vim, Tim, dim, Kim, rim
/cap(I)n/ in, win, tin, pin, gin, fin, bin, sin, din, kin, thin, shin, chin
/ar/ car, far, bar, jar, tar, par, char, mar,

Foils: from any line list other than line list containing target word.

TASK 4: SORTING WORDS BY WORD ENDING: SHORT VOWEL RIMES ENDING IN CONSONANT DIGRAPHS (9)

Learning Objective: The student will sort words based on word rime when a series of words is presented at a rate of 30 wpm, 45 wpm and 60 wpm. Words will be presented in auditory only, auditory + visual, or visual only format. A visual cue will or will not be provided to facilitate performance with visual presentations.

Criteria: 80% correct within round of play to advance; drop level of play if less than 50%
Activity Module1

HELLO>>"Hi boys & girls.
START>> Let's find all the words that start end with …
PUT>>… and put them over here on the left.
OTHER>>All the other words will go over here on the right.
LEFT>>Click on my left shoe to put the words on the left side.....
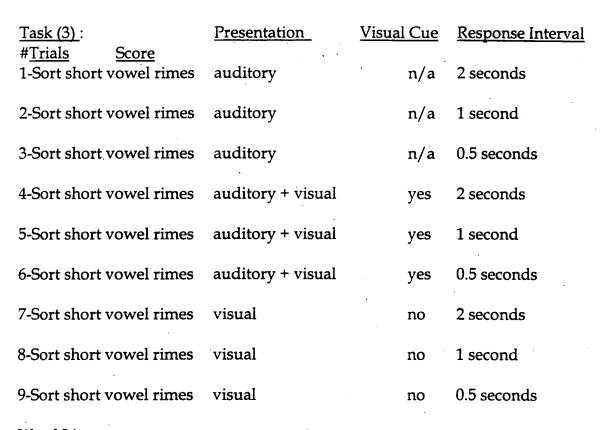RIGHT>>Click on my right shoe to put the words on the right side.
GO>> Get ready, set.....Go!"
On correct response: Place printed word on chart. Say word. Receive Happy clown face.
On incorrect response: Place printed word on CORRECT chart. Say word. Receive sad clown face.
On failure to respond within time interval: GOT"I got this one" PLAY"You have to be quick to play this game!" Place printed word on CORRECT chart. Say word. Receive sad clown face.
On failure to respond more than 2x in a row: SLEEP"Hey, are you sleeping'? Click on me if you want to keep playing." If no response from user, discard all 3 NRs and end round of play. If user responds to continue play, place printed word on CORRECT chart. Say word. Receive sad clown face. AWAKE "Stay awake now." Continue round of play.
At end of round: END "Let's read all the words that end with /aep/." Highlight and play all words on left chart.

Task (4) : #Trials Score	Presentation	Visual Cue	Response Interval
1-Sort short vowel rimes	auditory	n/a	2 seconds
2-Sort short vowel rimes	auditory	n/a	1 second
3-Sort short vowel rimes	auditory	n/a	0.5 seconds
4-Sort short vowel rimes	auditory + visual	yes	2 seconds
5-Sort short vowel rimes	auditory + visual	yes	1 second
6-Sort short vowel rimes	auditory + visual	yes	0.5 seconds
7-Sort short vowel rimes	visual	no	2 seconds
8-Sort short vowel rimes	visual	no	1 second
9-Sort short vowel rimes	visual	no	0.5 seconds

Word List:

New words added 9/24/99
/aeth/ bath, math, hath, wrath, path, lath
/cap(I)sh/ fish, dish, wish mish, kish, gish
/^sh/ hush, mush, rush, lush, wush, gush
/^ch/ such, much, vuch, nuch, huch, luch
/aesh/ ash, cash, dash, sash, hash, mash, lash, rash, gash, bash

Foils: from any line list other than line list containing target word.

(FORMER TASK 3)
TASK 5: SORTING WORDS BY FINAL CONSONANT SOUND: SINGLE
CONSONANTS (9)
Learning Objective: The student will sort words based on final consonant sound and
single consonant letter when a series of words is presented at a rate of 30 wpm, 45 wpm
and 60 wpm. Words will be presented in auditory only, auditory + visual, or visual only
format. A visual cue will or will not be provided to facilitate performance with visual
presentations.

Criteria: 80% correct within round of play to advance; drop level of play if less than 50%

Activity Module1

HELLO>>"Hi boys & girls.

START>> Let's find all the words that ~~start~~ end with ...

PUT>>... and put them over here on the left.

OTHER>>All the other words will go over here on the right.

LEFT>>Click on my left shoe to put the words on the left side.....

RIGHT>>Click on my right shoe to put the words on the right side.

GO>> Get ready, set.....Go!"

On correct response: Place printed word on chart. Say word. Receive Happy clown face.

On incorrect response: Place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~

On failure to respond within time interval: **GOT** "I got this one" **PLAY** "You have to be quick to play this game!" Place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~

On failure to respond more than 2x in a row: **SLEEP** "Hey, are you sleeping'? Click on me if you want to keep playing." If no response from user, discard all 3 NRs and end round of play. If user responds to continue play, place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~ **AWAKE** "Stay awake now." Continue round of play.

At end of round: **END** "Let's read all the words that end with /p/." Highlight and play all words on left chart.

Task (5): #Trials Score	Presentation	Visual Cue	Response Interval
1-Sort End. Consonants	auditory	n/a	2 seconds
2-Sort End. Consonants	auditory	n/a	1 second
3-Sort End. Consonants	auditory	n/a	0.5 seconds
4-Sort End. Consonants	auditory + visual	yes	2 seconds
5-Sort End. Consonants	auditory + visual	yes	1 second
6-Sort End. Consonants	auditory + visual	yes	0.5 seconds
7-Sort End. Consonants	visual	no	2 seconds
8-Sort End. Consonants	visual	no	1 second

9-Sort End. Consonants   visual   no   0.5 seconds

Word List:
/b/ cab, cob, rib, fib, rub, tub, dab, sub, lab, nab, dub, pub
/d/ cod, mad, mud, red, bed, led, lad, shed, nod, sad, fed, bid
/f/ none
/g/ bag, nag, tag, big, pig, tug, rug, shag, chug, thug, wig, leg
/h/ none
/dz/ none
/k/ none
/m/ sum, hum, gum, rim, dim, ham, jam, ram, sham, chum, lam, dam, hem
/n/ ten, hen, pen, pan, can, man, tin, chin, shin, thin, men, yin, fun, bun
/p/ cap, tap, hip, ship, chip, cup, dip, pep, lip, lap, gap, bop
/r/ fir, her, sir, her, per, car, bar, par, jar, far
/t/ hot, pat, mat, cot, nut, net, pet, rot, rat, bit
/v/ none
/x/ none; /w/ none; /y/ none

Foils: from any line list other than line list containing target word.

TASK 6: SORTING WORDS BY FINAL CONSONANT SOUND: CONSONANT DIGRAPHS (9)
Learning Objective: The student will sort words based on final consonant sound and consonant digraphs when a series of words is presented at a rate of 30 wpm, 45 wpm and 60 wpm. Words will be presented in auditory only, auditory + visual, or visual only format. A visual cue will or will not be provided to facilitate performance with visual presentations.

Criteria: 80% correct within round of play to advance; drop level of play if less than 50%
Activity Module1
HELLO>>"Hi boys & girls.
START>> Let's find all the words that ~~start~~ end with ...
PUT>>... and put them over here on the left.
OTHER>>All the other words will go over here on the right.
LEFT>>Click on my left shoe to put the words on the left side.....
RIGHT>>Click on my right shoe to put the words on the right side.
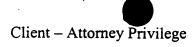GO>> Get ready, set.....Go!"
On correct response: Place printed word on chart. Say word. Receive Happy clown face.
On incorrect response: Place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~

<u>On failure to respond within time interval</u>: **GOT** "I got this one" **PLAY** "You have to be quick to play this game!" Place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~

<u>On failure to respond more than 2x in a row</u>: **SLEEP** "Hey, are you sleeping'? Click on me if you want to keep playing." If no response from user, discard all 3 NRs and end round of play. If user responds to continue play, place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~ **AWAKE** "Stay awake now." Continue round of play.

<u>At end of round</u>: **END** "Let's read all the words that end with /p/." Highlight and play all words on left chart.

Task (6) : #Trials Score	Presentation	Visual Cue	Response Interval
1-Sort End. Consonants	auditory	n/a	2 seconds
2-Sort End. Consonants	auditory	n/a	1 second
3-Sort End. Consonants	auditory	n/a	0.5 seconds
4-Sort End. Consonants	auditory + visual	yes	2 seconds
5-Sort End. Consonants	auditory + visual	yes	1 second
6-Sort End. Consonants	auditory + visual	yes	0.5 seconds
7-Sort End. Consonants	visual	no	2 seconds
8-Sort End. Consonants	visual	no	1 second
9-Sort End. Consonants	visual	no	0.5 seconds

Word List:
   /sh/ wish, dish, fish, mush, hush, rush, push, lush, lash, dash, hash, rash
   /ch/ much, such, rich, which
   /th/ bath, math, both, with, lath, Beth, Seth, moth, path, hath
Foils: from any line list other than line list containing target word.

(FORMER TASK 4)
TASK 7: SORTING WORDS BY SEMANTIC CATEGORY: COLORS, NUMBERS, SHAPES (27)

<u>Learning Objective</u>: The student will sort words into categories of colors, numbers, shapes when a series of words is presented at a rate of 30 wpm, 45 wpm and 60 wpm. Words will be presented in auditory only, auditory + visual, or visual only format. A visual cue will or will not be provided to facilitate performance.

Criteria: 80% correct within round of play to advance; drop level of play if less than 50%.
Activity Module1
HELLO>>"Hi boys & girls.
START>> Let's find all the **COLOR** words ~~that start with …~~
PUT>>... and put them over here on the left.
OTHER>>All the other words will go over here on the right.
LEFT>>Click on my left shoe to put the words on the left side…..
RIGHT>>Click on my right shoe to put the words on the right side.
GO>> Get ready, set…..Go!"
<u>On correct response:</u> Place printed word on chart. Say word. Receive Happy clown face.
<u>On incorrect response:</u> Place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~
<u>On failure to respond within time interval:</u> GOT "I got this one" PLAY "You have to be quick to play this game!" Place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~
<u>On failure to respond more than 2x in a row:</u> SLEEP "Hey, are you sleeping'? Click on me if you want to keep playing." If no response from user, discard all 3 NRs and end round of play. If user responds to continue play, place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~ AWAKE "Stay awake now." Continue round of play.
<u>At end of round:</u> IN4A "Let's read all the color words." Highlight and play all words on left chart.

HELLO>>"Hi boys & girls.
IN4B>>Let's find all the words that are numbers and put them over here on the left.
OTHER>>All the other words will go over here on the right.
LEFT>> Click on my left shoe to put the words on the left side…..
RIGHT>>Click on my right shoe to put the words on the right side.
GO>>Get ready, set…..Go!"
<u>On correct response:</u> Place printed word on chart. Say word. Receive Happy clown face.
<u>On incorrect response:</u> Place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~
<u>On failure to respond within time interval:</u> GOT>>"I got this one" PLAY>>"You have to be quick to play this game!" Place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~
<u>On failure to respond more than 2x in a row:</u> SLEEP>>"Hey, are you sleeping'? Click on me if you want to keep playing." If no response from user, discard all 3 NRs and end

round of play. If user responds to continue play, place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~ **AWAKE>>**"Stay awake now." Continue round of play.

At end of round: **IN4B1>>**"Let's read all the number words." Highlight and play all words on left chart.

HELLO>>"Hi boys & girls.

IN4C>>Let's find all the words that are shapes and put them over here on the left.

OTHER>> All the other words will go over here on the right.

LEFT>> Click on my left shoe to put the words on the left side.....

RIGHT>>Click on my right shoe to put the words on the right side.

GO>>Get ready, set.....Go!"

On correct response: Place printed word on chart. Say word. Receive Happy clown face.

On incorrect response: Place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~

On failure to respond more than 2x in a row: **SLEEP>>**"Hey, are you sleeping'? Click on me if you want to keep playing." If no response from user, discard all 3 NRs and end round of play. If user responds to continue play, place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~ **AWAKE>>**"Stay awake now." Continue round of play.

On failure to respond within time interval: **GOT>>**"I got this one" **PLAY>>**"You have to be quick to play this game!" Place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~

At end of round: **IN4C1>>**"Let's read all the shape words." Highlight and play all words on left chart.

Task (7) : #Trials	Presentation Score	Visual Cue	Response Interval
1- Sort Color words	auditory	n/a	2 seconds
2-Sort Color words	auditory	n/a	1 second
3-Sort Color words	auditory	n/a	0.5 seconds
4- Sort Color words	auditory + visual	yes	2 seconds
5-Sort Color words	auditory + visual	yes	1 second
6-Sort Color words	auditory + visual	yes	0.5 seconds
7-Sort Color words	visual	no	2 seconds
8-Sort Color words	visual	no	1 second
9-Sort Color words	visual	no	0.5 seconds

10- Sort Number words	auditory	n/a	2 seconds
11-Sort Number words	auditory	n/a	1 second
12-Sort Number words	auditory	n/a	0.5 seconds
13- Sort Number words	auditory + visual	yes	2 seconds
14-Sort Number words	auditory + visual	yes	1 second
15-Sort Numbers words	auditory + visual	yes	0.5 seconds
16-Sort Number words	visual	no	2 seconds
17-Sort Number words	visual	no	1 second
18-Sort Number words	visual	no	0.5 seconds
19- Sort Shape words	auditory	n/a	2 seconds
20-Sort Shape words	auditory	n/a	1 second
21-Sort Shape words	auditory	n/a	0.5 seconds
22- Sort Shape words	auditory + visual	yes	2 seconds
23-Sort Shape words	auditory + visual	yes	1 second
24-Sort Shape words	auditory + visual	yes	0.5 seconds
25-Sort Shape words	visual	no	2 seconds
26-Sort Shape words	visual	no	1 second
27-Sort Shape words	visual	no	0.5 seconds

Word List & Cues:
**Colors (display in corresponding color): green, yellow, red, black, brown, white, blue, purple, orange, pink
**Numbers (display corresponding digit): zero, one, two, three, four, five, six, seven, eight, nine, ten ,eleven, twelve
**Shapes (display corresponding shape): square, circle, rectangle, triangle, oval, star, moon, arrow, heart, diamond

(FORMER TASK 5)
TASK 8: SORTING WORDS BY SEMANTIC CATEGORY: ANIMALS, OBJECTS &
PEOPLE (27)

Learning Objective: The student will sort words into categories of animals, objects and
people when a series of words is presented at a rate of 30 wpm, 45 wpm and 60 wpm.
Words will be presented in auditory only, auditory + visual, or visual only format. A
visual cue will or will not be provided to facilitate performance.

Criteria: 80% correct within round of play to advance; drop level of play if less than 50%
Activity Module1
HELLO>>"Hi boys & girls.
START>> Let's find all the words that **are animals** start with ...
PUT>>... and put them over here on the left.
OTHER>>All the other words will go over here on the right.
LEFT>>Click on my left shoe to put the words on the left side.....
RIGHT>>Click on my right shoe to put the words on the right side.
GO>> Get ready, set.....Go!"
On correct response: Place printed word on chart. Say word. Receive Happy clown face.
On incorrect response: Place printed word on CORRECT chart. Say word. Receive sad
clown face.
On failure to respond within time interval:GOT>> "I got this one" PLAY>> "You have
to be quick to play this game!" Place printed word on CORRECT chart. Say word.
Receive sad clown face.
On failure to respond more than 2x in a row: SLEEP>> "Hey, are you sleeping'? Click
on me if you want to keep playing." If no response from user, discard all 3 NRs and end
round of play. If user responds to continue play, place printed word on CORRECT
chart. Say word. Receive sad clown face. AWAKE>> "Stay awake now." Continue
round of play.
At end of round: IN5A "Let's read all the animal words." Highlight and play all words
on left chart.

HELLO>>"Hi boys & girls.
IN5B>> Let's find all the words that are objects and put them over here on the left.
OTHER>> All the other words will go over here on the right.
LEFT>>Click on my left shoe to put the words on the left side...
RIGHT>>Click on my right shoe to put the words on the right side.
GO>>Get ready, set.....Go!"
On correct response: Place printed word on chart. Say word. Receive Happy clown face.
On incorrect response: Place printed word on CORRECT chart. Say word. Receive sad
clown face.

On failure to respond within time interval:**GOT>>** "I got this one"**PLAY>>**"You have to be quick to play this game!" Place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~

On failure to respond more than 2x in a row: **SLEEP>>**"Hey, are you sleeping'? Click on me if you want to keep playing." If no response from user, discard all 3 NRs and end round of play. If user responds to continue play, place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~ **AWAKE>>**"Stay awake now." Continue round of play.

At end of round: **IN5B1** "Let's read all the object words." Highlight and play all words on left chart.

HELLO>>"Hi boys & girls.

IN5C>>Let's find all the words that are people and put them over here on the left.

OTHER>> All the other words will go over here on the right.

LEFT>>Click on my left shoe to put the words on the left side.....

RIGHT>>Click on my right shoe to put the words on the right side.

GO>>Get ready, set.....Go!"

On correct response: Place printed word on chart. Say word. Receive Happy clown face.

On incorrect response: Place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~

On failure to respond within time interval: **GOT>>**"I got this one" **PLAY>>**"You have to be quick to play this game!" Place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~

On failure to respond more than 2x in a row: **SLEEP>>**"Hey, are you sleeping'? Click on me if you want to keep playing." If no response from user, discard all 3 NRs and end round of play. If user responds to continue play, place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~ **AWAKE>>**"Stay awake now." Continue round of play.

At end of round: **IN5C1** "Let's read all the people words." Highlight and play all words on left chart.

Task (8) :	Presentation	Visual Cue	Response Interval	
#Trials	Score			
1- Sort Animal words	auditory		n/a	2 seconds
2-Sort Animal words	auditory		n/a	1 second
3-Sort Animal words	auditory		n/a	0.5 second
4- Sort Animal words	auditory + visual	yes	2 seconds	

5-Sort Animal words	auditory + visual	yes	1 second
6-Sort Animal words	auditory + visual	yes	0.5 second
7-Sort Animal words	visual	no	2 seconds
8-Sort Animal words	visual	no	1 second
9-Sort Animal words	visual	no	0.5 seconds
10- Sort Object words	auditory	n/a	2 seconds
11-Sort Object words	auditory	n/a	1 seconds
12-Sort Object words	auditory	n/a	0.5 seconds
13- Sort Object words	auditory + visual	yes	2 seconds
14-Sort Object words	auditory + visual	yes	1 second
15-Sort Object words	auditory + visual	yes	0.5 seconds
16-Sort Object words	visual	no	2 seconds
17-Sort Object words	visual	no	1 second
18-Sort Object words	visual	no	0.5 seconds
19-Sort People words	auditory	n/a	2 seconds
20-Sort People words	auditory	n/a	1 second
21-Sort People words	auditory	n/a	0.5 seconds
22- Sort People words	auditory + visual	yes	2 seconds
23-Sort People words	auditory + visual	yes	1 second
24-Sort People words	auditory + visual	yes	0.5 seconds
25-Sort People words	visual	no	2 seconds

26-Sort People	words	visual	no	1 second
27-Sort People	words	visual	no	0.5 second

Word List & Cues:

**Animals (display corresponding graphic): dog, cat, cow, horse, pig, rabbit, bird, fish, sheep, goat, chicken, zebra, monkey, bear, mouse, snake, giraffe, lion, tiger, duck, elephant, dinosaur, squirrel.

**Objects (display corresponding graphic): book, chair, desk, bed, table, house, tree, cake, flower, father, ball, shoe, shirt, door, window, car, truck, bus, cookie, wagon, doll, train, dress, hat, cup, plate, plane, boat, school, house, store, grass, tree, sun, moon, star, cloud, rain, water, rock, hill, crayon, letter, radio, pen, pencil, scissors, chair, desk

**People (display corresponding graphic): man, woman, boy, girl, teacher-M, doctor-F, children, mother, nurse-F, baby, grandma, grandpa, police-F, farmer-M, waiter-F, cashier-M, librarian-F, lifeguard-F, mailman-M, fireman-M, cook-M

(FORMER TASK 6)
TASK 9: SIGHT WORD RECOGNITION & READING FLUENCY: HIGH FREQUENCY
SIGHT WORDS (15)
Learning Objective: Following visual+auditory, visual-only or auditory-only visual-
only presentation of a target word, the student will identify the same word in a series of
words auditorily or visually presented at a rate of 30 wpm, 45 wpm and 60 wpm. The
visual display of the target word will or will not remain on screen to facilitate
performance.

Criteria: 4/2
Activity Module 2

Visual + auditory presentation of target word with Auditory Series:
HELLO>>"Hi boys & girls.
TWS>>This word says ... 'the'.
HEAR>>Use your mouse to click on the dart when you hear this word.
GO>> Get ready, set.....Go!"
On correct response: Shoot dart & burst balloon. Display graphic in response box.
Repeat and flash the word.
On incorrect response: Shoot dart but miss balloon. Display graphic in response box.
Repeat and flash the word.
On failure to respond within time interval: MISS "We missed that one." Repeat and
flash word. Display graphic in response box.
On failure to respond more than 2x in a row: HELLO?>> "Hello? Click on me if you
want to keep playing." If no response from user, discard all 3 NRs and end round of
play. If user responds to continue play, place printed word on CORRECT chart. Say
word. Receive sad clown face. ATTN>> "Pay attention now." Continue round of play.

Visual + auditory presentation of target word with Visual Series:
HELLO>>"Hi boys & girls.
TWS>>This word says 'the'.
SAME>> Click on the dart when you see the same word on one of the balloons.
GO>>Get ready, set.....Go!"
On correct response: Shoot dart & burst balloon. Display graphic in response box.
Repeat and flash the word.
On incorrect response: Shoot dart but miss balloon. Display graphic in response box.
Repeat and flash the word.
On failure to respond within time interval:MISS>> "We missed that one." Repeat and
flash word. Display graphic in response box.
On failure to respond more than 2x in a row: HELLO?>>"Hello? Click on me if you
want to keep playing." If no response from user, discard all 3 NRs and end round of

play. If user responds to continue play, place printed word on CORRECT chart. Say word. ~~Receive sad clown face.~~ **ATTN>>**"Pay attention now." Continue round of play.

Visual presentation of target word with Visual Series:
HELLO>>"Hi boys & girls. (Show target word).
TARGET>> Click on the dart when you see this word on one of the balloons.
GO>> Get ready, set.....Go!"
<u>On correct response:</u> Shoot dart & burst balloon. Display graphic in response box. Repeat and flash the word.
<u>On incorrect response:</u> Shoot dart but miss balloon. Display graphic in response box. Repeat and flash the word.
<u>On failure to respond within time interval:</u>**MISS>>** "We missed that one." Repeat and flash word. Display graphic in response box.
<u>On failure to respond more than 2x in a row</u>: ~~Receive sad clown face.~~
HELLO?>>"Hello? Click on me if you want to keep playing." If no response from user, discard all 3 NRs and end round of play. If user responds,**ATTN>>** "Pay attention now." Continue round of play. Else, discard data for all 3 NRs and end round of play.

Auditory presentation of target word with Visual Series:
HELLO>>"Hi boys & girls.
 SEE>> Click on the dart when you see the word 'new'
BALLOON>>...on one of the balloons.
GO>>Get ready, set.....Go!"
<u>On correct response:</u> Shoot dart & burst balloon. Display graphic in response box. Repeat and flash the word.
<u>On incorrect response:</u> Shoot dart but miss balloon. Display graphic in response box. Repeat and flash the word
<u>On failure to respond within time interval:</u>**MISS>>** "We missed that one." Repeat and flash word. Display graphic in response box.
<u>On failure to respond more than 2x in a row</u>: ~~Receive sad clown face.~~
HELLO?>>"Hello? Click on me if you want to keep playing." If no response from user, discard all 3 NRs and end round of play. If user responds, **ATTN>>**"Pay attention now." Continue round of play. Else, discard data for all 3 NRs and end round of play.

Word List:

a	cold	grow	may	said	too
about	come	had	me	saw	try
after	could	has	much	say	two
again	cut	have	must	see	under
all	did	he	my	seven	up

always	do	help	myself	shall	upon
am	does	her	never	she	us
an	done	here	new	show	use
and	don't	him	no	sing	very
any	down	his	not	sit	walk
are	draw	hold	now	six	want
around	drink	hot	of	sleep	warm
as	eat	how	off	small	was
ask	eight	hurt	old	so	wash
at	every	I	on	some	we
ate	fall	if	once	soon	well
away	far	in	one	start	went
be	fast	into	only	stop	were
because	find	is	open	take	what
been	first	it	or	tell	when
before	five	its	our	ten	where
best	fly	jump	out	thank	which
better	for	just	over	that	white
big	found	keep	own	the	who
black	four	kind	pick	their	why
blue	from	know	play	them	will
both	full	laugh	please	then	wish
bring	funny	let	pretty	there	with
brown	gave	light	pull	these	work
but	get	like	put	they	would
buy	give	little	ran	think	write
by	go	live	read	this	yellow
call	goes	long	red	those	yes
came	going	look	ride	three	you
can	good	made	right	to	your*
carry	got	make	round	today	
clean	green	many	run	together	

Task (9) :		Present Target	Hold Target		Present Series	Rate
#Trials	Score					
1-Recognize word		visual + auditory	yes		auditory	60 wpm
2-Recognize word		visual + auditory	yes		auditory	45 wpm

3-Recognize word	visual + auditory	yes	auditory	30 wpm
4-Recognize word	visual + auditory	yes	visual	60 wpm
5-Recognize word	visual + auditory	yes	visual	45 wpm
6-Recognize word	visual + auditory	yes	visual	30 wpm
7-Recognize word	visual + auditory	no	visual	60 wpm
8-Recognize word	visual + auditory	no	visual	45 wpm
9-Recognize word	visual + auditory	no	visual	30 wpm
10-Recognize word	visual	no	visual	60 wpm
11-Recognize word	visual	no	visual	45 wpm
12-Recognize word	visual	no	visual	30 wpm
13-Recognize word	auditory	n/a	visual	60 wpm
14-Recognize word	auditory	n/a	visual	45 wpm
15-Recognize word	auditory	n/a	visual	30 wpm

(FORMER TASK 7)
TASK 10: MATCHING ENDING CONSONANT SOUNDS WITH BEGINNING
CONSONANT SOUNDS: SINGLE CONSONANTS & CONSONANT DIGRAPHS (12)
Learning Objective: Following presentation of a target word, the student will select a
word that begins with a sound that matches the final sound of the target word by
selecting from two auditory-only, auditory + visual or visual-only response choices.
When visual response choices are available, visual cues will or will not be provided to
facilitate response. The task will be untimed or timed with 20 seconds or 10 seconds
allowed for response in the timed task.

Criteria: 3/2
61.   Activity Module 3

Instruction:
IN7A>> "Listen to the first word. Then find a second word - that begins with the same
sound you heard - at the end of the first word."
IN7A2>> In this game, you're going to match the ending letter of one word with the
beginning letter of the next word.
IN7A3>> " Start over here!"
Untimed: UT>>"Take all the time you need"
Timed: TIMED10>>" "You have 10 seconds on the clock. TIMED20>>" "You have 20
seconds on the clock
TRY2 "Try to find all the words before the time runs out."

<u>On correct response:</u> display karloon's hat inside box. In last box of maze, display hat with flower.

<u>On correct response:</u> **OH>>**"oh-oh!" or **OPS >>**"oops"….. **TRY>>**Let's try another one."

<u>On completion of maze:</u> Play all target words in maze.

<u>On failure complete maze within time interval:</u> **TU>>** "Time's up. Let's try another one."

WORD LIST (CHECK WITH MATTHEW RE: HOW TO CODE FOR ENDING SOUND AND BEGINNING SOUND)

/b/ bug, bun, bat, bus, bath, big, bed, bit
/b/ cab, cob, rib, fib, rub, tub, dab, sub, lab, nab, dub, pub

/c/ cat, can, cap, cop, cat, can, cob
/c/ FINAL = NONE

/d/ dot, dip, dish, dab, dub, did, dig, dash
/d/ cod, mad, mud, red, bed, led, lad, shed, nod, sad, fed, bid

/f/ fin, fan, fish, fat, fig, fad, fun

/g/ gal, gun, gum, gas, gap, gash, gush, get, gag,
/g/ bag, nag, tag, big, pig, tug, rug, shag, chug, thug, wig, leg

/h/ him, hat, hot, hug, hop, hen, hem, had, hog

/dz/ jet, jig, jab, jot, job, jug, jog, jam, jut

/k/ kid, kit, kin, Ken

/l/ lip, lap, lad, lap, lob, log, lid
/l/ pal, gal

/m/ mop, map, mug, mad, mid, mob, mug, men, mat
/m/ sum, hum, gum, rim, dim, ham, jam, ram, sham, chum, lam, dam

/n/ net, nut, nab, nod, nun, not, nip, nod, Ned
/n/ ten, hen, pen, pan, can, man, tin, chin, shin, thin, men, yin

/p/ pot, pig, pen, pot, put, pun, pub, pit, pop
/p/ cap, tap, hip, ship, chip, cup, dip, pep, lip, lap, gap, bop

/r/ red, rug, rat, rag, rib, rod, rob, rut
/r/ fir, her, sir, her, per, car, bar, par, jar, far

/s/ sun, sock, sat, sip, same, sub, side, sane, same, sat, sag, sob, sit, Sam, site
/s/ gas, bus

/t/ ten, top, tub, top, tap, tin, tad, tan
/t/ hot, pat, mat, cot, nut, net, pet, rot, rat, bit

/v/ van, vet, vat, vim, vin

/w/ web, wig, wet, wag, win, wish, wed

/j/ yes, yen, yap, yep, yin, yet, yin

/z/ zag, zig, zone, zip, zit, zen, zap
/z/ FINAL = NONE

/sh/ shot, ship, shut, shin, shag
/sh/ wish, dish, fish, mush, hush, rush, push, lush, lash, dash, hash, rash

/ch/ chip, chop, chat, chum, chap, chin, chug
/ch/ much, such, rich, which

/th/ thin, thud, thug
/th/ bath, math, both, with, lath, Beth, Seth, moth, path, hath

Task (10) : #Trials	A-Play Score	V-Display	Visual Cue	Time Allowed
1-Match Cons. %	yes	no	n/a	unlimited
2-Match Cons. %	yes	no	n/a	20 seconds
3-Match Cons. %	yes	no	n/a	10 seconds
4-Match Cons. %	yes	yes	yes	unlimited
5-Match Cons. %	yes	yes	yes	20 seconds
6-Match Cons. %	yes	yes	yes	10 seconds

7-Match Cons. %	no	yes	yes	unlimited
8-Match Cons. %	no	yes	yes	20 seconds
9-Match Cons. %	no	yes	yes	10 seconds
10-Match Cons. %	no	yes	no	unlimited
11-Match Cons. %	no	yes	no	20 seconds
12-Match Cons. %	no	yes	no	10 seconds

(FORMER TASK 8)
TASK 11: MATCHING SHORT VOWEL SOUNDS (12)

<u>Learning Objective</u>: Following presentation of a target word, the student will select a word containing the same short vowel sound from two auditory-only, auditory + visual or visual-only response choices. When visual response choices are available, visual cues will or will not be provided to facilitate response. The task will be un-timed or timed with 20 seconds or 10 seconds allowed for response in the timed task.

Activity Module 3

Instruction: **IN8A>>**"Let's see if you can find all the words that have the short vowel sound...."
Untimed: **UT>>**"Take all the time you need"
Timed: **TIMED10>>**" "You have 10 seconds on the clock. **TIMED20>>**" "You have 20 seconds on the clock
TRY2 "Try to find all the words before the time runs out."
<u>On correct response:</u> display karloon's hat inside box. In last box of maze, display hat with flower.
<u>On correct response:</u> **OH>>** "oh-oh!" **OPS>>** "oops"
<u>On completion of maze:</u> Play all target words in maze.
<u>On failure complete maze within time interval:</u> **TU>>** "Time's up. Let's try another one."

Word List
/ae/ cat, hat, map, bat, man, fan, can, van, cash, chat, vat, gag, shag, rag, nap, chap, yap, mash, dash

/E/ web, pen, red, bed, vet, ten, peg, led, ~~yen,~~ hen, men, fed, led, wed, shed

/I/ fin, pig, lip, wig, bib, pin, ship, chin, chip, zip, chip, ~~yin,~~ lid, kid, rid, ~~vim,~~ him, rim, wish, dish

/a/ pot, mop, dot, top, pot, shop, rot, cot, shot, lot, sob, rob, bob, cod, rod, sod, nod, job

/^/ jug, sun, bug, bun, mug, bus, gum, rug, nut, mush, such, cub, dub, rub, hush, mush, rush

Foils: from any line list ABOVE other than line list containing target word.

Task (11) : #Trials	A-Play Score	V-Display	Visual Cue	Time Allowed
1-ID vowel phoneme %	yes	no	n/a	unlimited
2-ID vowel phoneme %	yes	no	n/a	20 seconds
3-ID vowel phoneme %	yes	no	n/a	10 seconds
4-ID vowel phoneme %	yes	yes	yes	unlimited
5-ID vowel phoneme %	yes	yes	yes	20 seconds
62. 6-ID vowel phoneme %	yes	yes	yes	10 seconds
7-ID vowel phoneme %	no	yes	yes	unlimited
8-ID vowel phoneme %	no	yes	yes	20 seconds
9-ID vowel phoneme %	no	yes	yes	10 seconds
10-ID vowel phoneme %	no	yes	no	unlimited
11-ID vowel phoneme %	no	yes	no	20 seconds
12-ID vowel phoneme %	no	yes	no	10 seconds

(FORMER TASK 9)
TASK 12: MATCHING WORD-FINAL MORPHEMES (12)
Learning Objective: Following presentation of a target word, the student will select a word containing the same word-final morpheme from two auditory-only, auditory + visual or visual-only response choices. When visual response choices are available, visual cues will or will not be provided to facilitate response. The task will be untimed or timed with 20 seconds or 10 seconds allowed for response in the timed task.

Activity Module 3

10-20-99
ADD INTRO TO SEMANTICS:
Begin round with instructions.
HELLO>> "Hi boys & girls.
WORDS>> "Let's talk about the ends of words.
TELLS>> " The end of a word tells you something about what the word means."
IN11A>> For example, ..."cat"
IN11A1>> means ..."one cat" (SHOW PICTURE OF CAT)---
IN11A2>>"catS" ....
IN11A3>> "means more than one .....cat" (SHOW PICTURE OF CATS)
IN11B>>For example, "dish"
IN11B1>>means "one dish" (SHOW PICTURE OFDISH) ---
IN11B2>>"dishES"
IN11B3>>means "more than one dish" (SHOW PICTURE OF DISHES)

HELLO>> "Hi boys & girls.

WORDS>> Let's talk about the ends of words.

TELLS>> The end of a word tells you something about what the word means." For example,

IN12A >>"CookS ...means SOMETHING IS HAPPENING right now....

IN12A1>> Alex cookS right now." (show graphic)

IN12A2 >>"CookING means SOMETHING IS HAPPENING right now....

IN12A3>>Alex is cookING right now." (show graphic)

IN12A4>> "CookED means something that ALREADY happened in the past and is finished....

IN12A5>> Alex cookED soup yesterday." (show graphic)

Instruction: **IN9A >>**"Let's see if you can find all the words that end with...."
Untimed: **UT>>** "Take all the time you need"
Timed: **TIMED10>>**" "You have 10 seconds on the clock. **TIMED20>>**" "You have 20 seconds on the clock
TRY2 "Try to find all the words before the time runs out."
<u>On correct response:</u> display karloon's hat inside box. In last box of maze, display hat with flower.
<u>On correct response:</u> **OH>>** "oh-oh!" or **OPS>>**"oops"..... **TRY>>** Let's try another one."
<u>On completion of maze:</u> Play all target words in maze.
<u>On failure complete maze within time interval:</u> **TU>>** "Time's up. Let's try another one."

JMW: cONTROL for foils?

Word List:

(new words in bold)
(a)   NEW WORDS IN BOLD CAPS 10-21-99

Plural 's' /s/: cats, mats, pots, cups, pups, lips, caps, maps,

Verb 's' /s/: hits, rips, pats, sips, dips, dips, sits,

Plural 's' /z/: cabs, tubs, subs, lads, beds, bags, hams, chins, cars, jars, **BIBS**

Verb 's' /z/: rubs, bids, **HUGS, DIGS, TUGS, RUNS, BEGS**

Plural 'es' /ez/: dishes, wishes, lashes, fishes, bushes, dashes,

Verb 'es' /ez/: washes, rushes, mashes, hushes, rashes, pushes, riches

'ed' /t/ wished, rushed, dashed, **washed, fished, mashed, pushed**

'ing' /ing/ washing, hiding, rushing, wishing, pushing, **dashing, fishing, mashing**

Task (12) : #Trials	A-Play	Score	V-Display	Visual Cue	Time Allowed
1-ID morpheme %	yes	no	n/a	unlimited	
2-ID morpheme %	yes	no	n/a	20 seconds	
3-ID morpheme %	yes	no	n/a	10 seconds	
4-ID morpheme %	yes	yes	yes	unlimited	
5-ID morpheme %	yes	yes	yes	20 seconds	
6-ID morpheme %	yes	yes	yes	10 seconds	
7-ID morpheme %	no	yes	yes	unlimited	
8-ID morpheme %	no	yes	yes	20 seconds	
9-ID morpheme %	no	yes	yes	10 seconds	
10-ID morpheme %	no	yes	no	unlimited	
11-ID morpheme %	no	yes	no	20 seconds	
12-ID morpheme %	no	yes	no	10 seconds	

(FORMER TASK 10)
TASK 13: WORD RECOGNITION, DECODING & READING FLUENCY: NONSENSE WORDS CONTAINING SHORT VOWELS, CONSONANTS AND CONSONANT DIGRAPHS (15)
Learning Objective: Following visual+auditory, visual-only or auditory-only visual-only presentation of a target word, the student will identify the same word in a series of

words auditorily or visually presented at a rate of 30 wpm, 45 wpm and 60 wpm. The visual display of the target word will or will not remain on screen to facilitate performance.

Criteria: 4/2
Activity Module 2

Visual + auditory presentation of target word with Auditory Series:
HELLO>>"Hi boys & girls.
TWS>>This word says … ~~'the'.~~ 'maf'
HEAR>>Click on the mouse when you hear this word.
GO>> Get ready, set.....Go!"
<u>On correct response:</u> Shoot dart & burst balloon. Display graphic in response box. Repeat and flash the word.
<u>On incorrect response:</u> Shoot dart but miss balloon. Display graphic in response box. Repeat and flash the word.
<u>On failure to respond within time interval</u>: **MISS>>** "We missed that one." OR **WOOPS>>** "Woops, missed it." Repeat and flash word. Display graphic in response box.
<u>On failure to respond more than 2x in a row</u>: Display graphic for wrong response in response box. **HELLO?>>** "Hello? Click on me if you want to keep playing." If no response from user, discard all 3 NRs and end round of play. If user responds, **ATTN>>** "Pay attention now." Continue round of play. Else, discard data for all 3 NRs and end round of play.

Visual + auditory presentation of target word with Visual Series:
HELLO>>"Hi boys & girls. \
TWS>>This word says 'maf'.
SAME>> Click on the mouse when you see the same word on one of the balloons.
GO>> Get ready, set.....Go!"
<u>On correct response:</u> Shoot dart & burst balloon. Display graphic in response box. Repeat and flash the word.
<u>On incorrect response:</u> Shoot dart but miss balloon. Display graphic in response box. Repeat and flash the word.
<u>On failure to</u> **WOOPS>>** "Woops, missed it."
Repeat and flash word. Display graphic in response box.
<u>On failure to respond more than 2x in a row</u>: Display graphic for wrong response in response box. **HELLO>>**"Hello? Click on me if you want to keep playing." If no response from user, discard all 3 NRs and end round of play. If user responds, **ATTN>>** "Pay attention now." Continue round of play. Else, discard data for all 3 NRs and end round of play.

Visual presentation of target word with Visual Series:

HELLO>>"Hi boys & girls. (Show target word).

TARGET>> Click on the mouse when you see this word on one of the balloons.

GO>> Get ready, set.....Go!"

<u>On correct response:</u> Shoot dart & burst balloon. Display graphic in response box. Repeat and flash the word.

<u>On incorrect response:</u> Shoot dart but miss balloon. Display graphic in response box. Repeat and flash the word.

<u>On failure to respond within time interval:</u>**MISS>>** "We missed that one." **WOOPS>>** "Woops, missed it." Repeat and flash word. Display graphic in response box.

<u>On failure to respond more than 2x in a row:</u> Display graphic for wrong response in response box.**HELLO?>>** "Hello? Click on me if you want to keep playing." If no response from user, discard all 3 NRs and end round of play. If user responds,**ATTN>**"Pay attention now." Continue round of play. Else, discard data for all 3 NRs and end round of play.

Auditory presentation of target word with Visual Series:

HELLO>>"Hi boys & girls.

SEE>> Click on the mouse when you see the word 'maf'

BALLOON>>on one of the balloons.

GO>>Get ready, set.....Go!"

<u>On correct response:</u> Shoot dart & burst balloon. Display graphic in response box. Repeat and flash the word.

<u>On incorrect response:</u> Shoot dart but miss balloon. Display graphic in response box. Repeat and flash the word

<u>On failure to respond within time interval:</u> **MISS>>**"We missed that one." **WOOPS>>** "Woops, missed it." Repeat and flash word. Display graphic in response box.

<u>On failure to respond more than 2x in a row:</u> Display graphic for wrong response in response box.**HELLO?>>** "Hello? Click on me if you want to keep playing." If no response from user, discard all 3 NRs and end round of play. If user responds,**ATTN>>** "Pay attention now." Continue round of play. Else, discard data for all 3 NRs and end round of play.

Words added 10-20-99

63.   WORD LIST

~~wat,~~ zat, yat, ADD: nat
ot, zot, ~~chot~~ ADD: vot
ug, gug, shug
~~chun,~~ mun, yun ADD: kun

op, vop, ~~kop~~ ADD: dop
en, shen, ~~chen~~ ADD: nen
ag, vag, kag
ig, shig, lig
ip, mip, vip
kad, nad, rad
fam, ~~cham~~, nam ADD: zam
zan, yan, han
ap, kap, bap
eg, neg, teg
et, fet, zet
hed, ~~ched,~~ ded ADD thed
tid, wid, nid
yim, sim, pim
lin, rin, zin
dit, yit, rit
ob, nob, wob
od, wod, lod
og, zog, shog
ub, ~~kub,~~ mub ADD wub
ut, mut, ~~chut~~ ADD thut
ar, sar, dar
ab, mab, sab
um, fum, wum
ug, wug, nug
ath, nath, fath
ish, pish, nish
ush, nush, wush
uch, nuch, vuch
~~kash,~~ zash, thash ADD tash
tash, yash, thash

Task (13): #Trials Score	Present Target	Hold Target	Present Series	Rate
1-Recognize word	visual + auditory	yes	auditory	60 wpm
2-Recognize word	visual + auditory	yes	auditory	45 wpm
3-Recognize word	visual + auditory	yes	auditory	30 wpm
4-Recognize word	visual + auditory	yes	visual	60 wpm
5-Recognize word	visual + auditory	yes	visual	45 wpm
6-Recognize word	visual + auditory	yes	visual	30 wpm

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7-Recognize word	visual + auditory	no		visual	60 wpm
8-Recognize word	visual + auditory	no		visual	45 wpm
9-Recognize word	visual + auditory	no		visual	30 wpm
10-Recognize word	visual	no		visual	60 wpm
11-Recognize word	visual	no		visual	45 wpm
12-Recognize word	visual	no		visual	30 wpm
13-Decode word	auditory	n/a		visual	60 wpm
14-Decode word	auditory	n/a		visual	45 wpm
15-Decode word	auditory	n/a		visual	30 wpm

(FORMER TASK 11)
TASK 14: WORD RECOGNITION, DECODING & READING FLUENCY: WORDS
CONTAINING WORD-FINAL PLURALITY MORPHEMES (21)
Learning Objective: Following visual+auditory, visual-only or auditory-only visual-
only presentation of a target word, the student will identify the same word in a series of
words auditorily or visually presented at a rate of 30 wpm, 45 wpm and 60 wpm. The
visual display of the target word will or will not remain on screen and will or will not
include a visual cue to facilitate performance.

Activity Module 2
Criteria: 4/2

Begin round with instructions.
HELLO>> "Hi boys & girls.
WORDS>> "Let's talk about the ends of words.
TELLS>> " The end of a word tells you something about what the word means."
IN11A>> For example, ..."cat"
IN11A1>> means ..."one cat" (SHOW PICTURE OF CAT)---
IN11A2>>"catS" ....
IN11A3>> "means more than one .....cat" (SHOW PICTURE OF CATS)
IN11B>>For example, "dish"
IN11B1>>means "one dish" (SHOW PICTURE OFDISH) ---
IN11B2>>"dishES"
IN11B3>>means "more than one dish" (SHOW PICTURE OF DISHES)

Visual + auditory presentation of target word with Auditory Series:
TWE>>"This word ends with ...
S>>...s'
AS>>...and says.... "cats".
IN11C>> Click when you hear this word.

GO>> Get ready, set....Go!"
<u>On correct response:</u> Shoot dart & burst balloon. Display graphic in response box. Repeat and flash the word.
<u>On incorrect response:</u> Shoot dart but miss balloon. Display graphic in response box. Repeat and flash the word.
<u>On failure to respond within time interval:</u> **MISS>>** "We missed that one." **WOOPS>>** "Woops, missed it." Repeat and flash word. Display graphic in response box.
<u>On failure to respond more than 2x in a row:</u> Display graphic for wrong response in response box. **HELLO?>>**"Hello? Click on me if you want to keep playing." If no response from user, discard all 3 NRs and end round of play. If user responds, **ATTN>>**"Pay attention now." Continue round of play. Else, discard data for all 3 NRs and end round of play.

Visual + auditory presentation of target word with Visual Series:
TWE>>"This words ends with
S>>...'s'
AS>>and says cats".
SAME>> Click when you see the same word on one of the balloons.
GO>>Get ready, set....Go!"
<u>On correct response:</u> Shoot dart & burst balloon. Display graphic in response box. Repeat and flash the word.
<u>On incorrect response:</u> Shoot dart but miss balloon. Display graphic in response box. Repeat and flash the word.
<u>On failure to respond within time interval:</u> **MISS>>**"We missed that one." **WOOPS>>** "Woops, missed it." Repeat and flash word. Display graphic in response box.
<u>On failure to respond more than 2x in a row:</u> Display graphic for wrong response in response box. **HELLO?>>**"Hello? Click on me if you want to keep playing." If no response from user, discard all 3 NRs and end round of play. If user responds,**ATTN>>** "Pay attention now." Continue round of play. Else, discard data for all 3 NRs and end round of play.

Visual presentation of target word with Visual Series:
(Show target word). **IN11D>>**Click on the mouse when you see this word that ends with ...'s'
BALLOON>> on one of the balloons.
GO>> Get ready, set.....Go!"
<u>On correct response:</u> Shoot dart & burst balloon. Display graphic in response box. Repeat and flash the word.
<u>On incorrect response:</u> Shoot dart but miss balloon. Display graphic in response box. Repeat and flash the word.
<u>On failure to respond within time interval:</u> **MISS>>**"We missed that one." **WOOPS>>** "Woops, missed it." Repeat and flash word. Display graphic in response box.

<u>On failure to respond more than 2x in a row</u>: Display graphic for wrong response in response box. **HELLO?>>**"Hello? Click on me if you want to keep playing." If no response from user, discard all 3 NRs and end round of play. If user responds,**ATTN>>** "Pay attention now." Continue round of play. Else, discard data for all 3 NRs and end round of play.

Auditory presentation of target word with Visual Series:
IN11E>> "Click on the mouse when you see the word ...'cats'
BALLOON>>... on one of the balloons.
Get ready, set.....Go!"
<u>On correct response:</u> Shoot dart & burst balloon. Display graphic in response box. Repeat and flash the word.
<u>On incorrect response:</u> Shoot dart but miss balloon. Display graphic in response box. Repeat and flash the word
<u>On failure to respond within time interval:</u>**MISS>>** "We missed that one." **WOOPS>>** "Woops, missed it." Repeat and flash word. Display graphic in response box.
<u>On failure to respond more than 2x in a row</u>: Display graphic for wrong response in response box. **HELLO?>>**"Hello? Click on me if you want to keep playing." If no response from user, discard all 3 NRs and end round of play. If user responds, **ATTN>>**"Pay attention now." Continue round of play. Else, discard data for all 3 NRs and end round of play.

Stimuli:

/s/

cat, cats

dog, dogs

mat, mats

pot, pots

pup, pups

lip, lips

(a) **bug, bugs**

log, logs

kid, kids

lid, lids
mug, mugs
cop, cops
ball, balls
wall, walls
map, maps
      gun, guns

      dish, dishes

bush, bushes
lash, lashes
dash, dashes
sash, sashes
wish, wishes

Task (14) : Score	Present Target	Hold Target	Series	Rate	Present #Trials
1-Recognize morpheme wpm	visual + auditory	yes		auditory	60
2-Recognize morpheme wpm	visual + auditory	yes		auditory	45
3-Recognize morpheme wpm	visual + auditory	yes		auditory	30
4-Recognize morpheme wpm	visual + auditory	yes		visual	60
5-Recognize morpheme wpm	visual + auditory	yes		visual	45
6-Recognize morpheme wpm	visual + auditory	yes		visual	30
7-Recognize morpheme wpm	visual + auditory	no		visual	60
8-Recognize morpheme wpm	visual + auditory	no		visual	45
9-Recognize morpheme wpm	visual + auditory	no		visual	30

10-Recognize morpheme cue 60 wpm	visual w/ cue	yes	visual w/
11-Recognize morpheme cue 45 wpm	visual w/ cue	yes	visual w/
12-Recognize morpheme cue 30 wpm	visual w/ cue	yes	visual w/
13-Recognize morpheme cue 60 wpm	visual w/ cue	no	visual w/
14-Recognize morpheme cue 45 wpm	visual w/ cue	no	visual w/
15-Recognize morpheme cue 30 wpm	visual w/ cue	no	visual w/
16-Recognize morpheme wpm	visual	no	visual 60
17-Recognize morpheme wpm	visual	no	visual 45
18-Recognize morpheme wpm	visual	no	visual 30
19-Decode morpheme 60 wpm	auditory	n/a	visual
20-Decode morpheme 45 wpm	auditory	n/a	visual
21-Decode morpheme 30 wpm	auditory	n/a	visual

(FORMER TASK 12)
TASK 15: WORD RECOGNITION, DECODING & READING FLUENCY: WORDS
CONTAINING WORD-FINAL VERB TENSE MORPHEMES (21)
<u>Learning Objective</u>: Following visual+auditory, visual-only or auditory-only visual-
only presentation of a target word, the student will identify the same word in a series of
words auditorily or visually presented at a rate of 30 wpm, 45 wpm and 60 wpm. The
visual display of the target word will or will not remain on screen and will or will not
include a visual cue to facilitate performance.

Criteria: 4/2
Activity Module 2
Begin round with instructions.

HELLO>> "Hi boys & girls.

WORDS>> Let's talk about the ends of words.

TELLS>> The end of a word tells you something about what the word means."
For example,

IN12A >>"CookS …means SOMETHING IS HAPPENING right now....

IN12A1>> Alex cookS right now." (show graphic)

IN12A2 >>"CookING means SOMETHING IS HAPPENING right now....

IN12A3>>Alex is cookING right now." (show graphic)

IN12A4>> "CookED means something that ALREADY happened ~~in the past~~ and
is finished....

IN12A5>> Alex cookED soup yesterday." (show graphic)

Visual + auditory presentation of target word with Auditory Series:
ING>> "This word ends with 'ing'
AS>> and says "sitting".
IN12B>>Click when you hear this word.
GO>>Get, set… ready....Go!"
<u>On correct response:</u> Shoot dart & burst balloon. Display graphic in response box.
Repeat and flash the word.
<u>On incorrect response:</u> Shoot dart but miss balloon. Display graphic in response box.
Repeat and flash the word.

<u>On failure to respond within time interval</u>: **MISS>>**"We missed that one." **WOOPS>>** "Woops, missed it." Repeat and flash word. Display graphic in response box.

<u>On failure to respond more than 2x in a row</u>: Display graphic for wrong response in response box. **HELLO?>>**"Hello? Click on me if you want to keep playing." If no response from user, discard all 3 NRs and end round of play. If user responds,**ATTN>>** "Pay attention now." Continue round of play. Else, discard data for all 3 NRs and end round of play.

Visual + auditory presentation of target word with Visual Series:

ED>> This word ends with 'ed'

AS>> and says "ripped".

SAME>> Click when you see the same word on one of the balloons.

GO>>Get ready, set....Go!"

<u>On correct response</u>: Shoot dart & burst balloon. Display graphic in response box. Repeat and flash the word.

<u>On incorrect response:</u> Shoot dart but miss balloon. Display graphic in response box. Repeat and flash the word.

<u>On failure to respond within time interval:</u>**MISS>>** "We missed that one." **WOOPS>>** "Woops, missed it." Repeat and flash word. Display graphic in response box.

<u>On failure to respond more than 2x in a row</u>: Display graphic for wrong response in response box.**HELLO?>>** "Hello? Click on me if you want to keep playing." If no response from user, discard all 3 NRs and end round of play. If user responds, **ATTN>>**"Pay attention now." Continue round of play. Else, discard data for all 3 NRs and end round of play.

Visual presentation of target word with Visual Series:

(Show target word).

IN2C>> Click on the mouse when you see this word that ends with 'ed'

BALLOON>>on one of the balloons.

GO>>Get ready, set.....Go!"

<u>On correct response</u>: Shoot dart & burst balloon. Display graphic in response box. Repeat and flash the word.

<u>On incorrect response:</u> Shoot dart but miss balloon. Display graphic in response box. Repeat and flash the word.

<u>On failure to respond within time interval</u>: **MISS>>**"We missed that one." **WOOPS>>** "Woops, missed it." Repeat and flash word. Display graphic in response box.

<u>On failure to respond more than 2x in a row</u>: Display graphic for wrong response in response box.**HELLO?>>** "Hello? Click on me if you want to keep playing." If no

response from user, discard all 3 NRs and end round of play. If user responds, **ATTN>>**"Pay attention now." Continue round of play. Else, discard data for all 3 NRs and end round of play.

Auditory presentation of target word with Visual Series:
SEE>> Click when you see the word "sits"
BALLOON>> on one of the balloons.
GO>>Get ready, set.....Go!"
On correct response: Shoot dart & burst balloon. Display graphic in response box. Repeat and flash the word.
<u>On incorrect response:</u> Shoot dart but miss balloon. Display graphic in response box. Repeat and flash the word
<u>On failure to respond within time interval:</u> **MISS>>**"We missed that one." **WOOPS>>** "Woops, missed it." Repeat and flash word. Display graphic in response box.
<u>On failure to respond more than 2x in a row:</u> Display graphic for wrong response in response box. **HELLO?>>**"Hello? Click on me if you want to keep playing." If no response from user, discard all 3 NRs and end round of play. If user responds, **ATTN>>**"Pay attention now." Continue round of play. Else, discard data for all 3 NRs and end round of play.

Stimuli:

rip, rips

hop, hops
mop, mops
(b)   **tap, taps**

64.   pat, pats

hug, hugs
tag, tags
fit, fits
rob, robs
nap, naps
run, runs
rub, rubs
beg, begs
dip, dips
hum, hums

65.   Push, pushing, pushed, pushes

Fish, fishing, fished, fishes
Wash, washing, washed, washes
Mash, mashing, mashed, mashes
66.   Dash, dashing, dashed, dashes

Rush, rushing, rushes, rushes
Gush, gushing, gushes, gushed
Wish, wishing, wishes, wished

Task (15) : #Trials Score	Present Target	Hold Target	Present Series	Rate
1-Recognize morpheme wpm	visual + auditory	yes	auditory	60
2-Recognize morpheme wpm	visual + auditory	yes	auditory	45
3-Recognize morpheme wpm	visual + auditory	yes	auditory	30
4-Recognize morpheme wpm	visual + auditory	yes	visual	60
5-Recognize morpheme wpm	visual + auditory	yes	visual	45
6-Recognize morpheme wpm	visual + auditory	yes	visual	30
7-Recognize morpheme wpm	visual + auditory	no	visual	60
8-Recognize morpheme wpm	visual + auditory	no	visual	45
9-Recognize morpheme wpm	visual + auditory	no	visual	30
10-Recognize morpheme cue 60 wpm	visual w/ cue	yes	visual w/	
11-Recognize morpheme cue 45 wpm	visual w/ cue	yes	visual w/	
12-Recognize morpheme cue 30 wpm	visual w/ cue	yes	visual w/	
13-Recognize morpheme cue 60 wpm	visual w/ cue	no	visual w/	

14-Recognize morpheme cue 45 wpm	visual w/ cue		no	visual w/
15-Recognize morpheme cue 30 wpm	visual w/ cue		no	visual w/
16-Recognize morpheme wpm	visual	no		visual 60
17-Recognize morpheme wpm	visual	no		visual 45
18-Recognize morpheme wpm	visual	no		visual 30
19-Decode morpheme 60 wpm		auditory	n/a	visual
20-Decode morpheme 45 wpm		auditory	n/a	visual
21-Decode morpheme 30 wpm		auditory	n/a	visual